



4/29/2014

Certified Mail

Kelly Taylor
 LUCAS COMPRESSOR STATION
 1700 MacCorkle Ave SE
 Environmental Permitting 4th Floor
 Charleston, WV 25314

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL
 Facility ID: 0370000164
 Permit Number: P0115969
 Permit Type: OAC Chapter 3745-31 Modification
 County: Richland

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
Yes	MACT/GACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED
No	MAJOR GHG
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA) Air Pollution Permit-to-Install (PTI) which will allow you to install or modify the described emissions unit(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, we urge you to read it carefully. Because this permit contains conditions and restrictions, please read it very carefully. In this letter you will find the information on the following topics:

- **How to appeal this permit**
- **How to save money, reduce pollution and reduce energy consumption**
- **How to give us feedback on your permitting experience**
- **How to get an electronic copy of your permit**

How to appeal this permit

The issuance of this PTI is a final action of the Director and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00, made payable to "Ohio Treasurer Josh Mandel," which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
 77 South High Street, 17th Floor
 Columbus, OH 43215

How to save money, reduce pollution and reduce energy consumption

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. Additionally, all or a portion of the capital expenditures related to installing air pollution control equipment under this permit may be eligible for financing and State tax exemptions through the Ohio Air Quality Development Authority (OAQDA) under Ohio Revised Code Section 3706. For more information, see the OAQDA website: www.ohioairquality.org/clean_air

How to give us feedback on your permitting experience

Please complete a survey at www.epa.ohio.gov/survey.aspx and give us feedback on your permitting experience. We value your opinion.

How to get an electronic copy of your permit

This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

If you have any questions, please contact Ohio EPA DAPC, Northwest District Office at (419)3528461 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,



Michael W. Ahern, Manager

Permit Issuance and Data Management Section, DAPC

Cc: U.S. EPA
Ohio EPA-NWDO; Canada



FINAL

**Division of Air Pollution Control
Permit-to-Install
for
LUCAS COMPRESSOR STATION**

Facility ID: 0370000164
Permit Number: P0115969
Permit Type: OAC Chapter 3745-31 Modification
Issued: 4/29/2014
Effective: 4/29/2014



Division of Air Pollution Control
Permit-to-Install
for
LUCAS COMPRESSOR STATION

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Final Permit-to-Install
LUCAS COMPRESSOR STATION
Permit Number: P0115969
Facility ID: 0370000164
Effective Date: 4/29/2014

Authorization

Facility ID: 0370000164
Facility Description: Natural Gas Transmission
Application Number(s): M0002521
Permit Number: P0115969
Permit Description: Chapter 31 modification permit for Glycol Dehydrator Units to represent maximum annual capacity.
Permit Type: OAC Chapter 3745-31 Modification
Permit Fee: \$400.00
Issue Date: 4/29/2014
Effective Date: 4/29/2014

This document constitutes issuance to:

LUCAS COMPRESSOR STATION
EH&S (4C)
1700 MacCorkle Avenue, S.E.
Charleston, WV 25314

of a Permit-to-Install 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, Northwest District Office
347 North Dunbridge Road
Bowling Green, OH 43402
(419)352-8461

The above named entity is hereby granted a Permit-to-Install for the 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 emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency


Craig W. Butler
Director



Authorization (continued)

Permit Number: P0115969
 Permit Description: Chapter 31 modification permit for Glycol Dehydrator Units to represent maximum annual capacity.

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

Group Name: Dehydrator Group

Emissions Unit ID:	P001
Company Equipment ID:	TEG DEHYDRATOR 1
Superseded Permit Number:	03-17413
General Permit Category andType:	Not Applicable
Emissions Unit ID:	P002
Company Equipment ID:	TEG DEHYDRATOR 2
Superseded Permit Number:	03-17413
General Permit Category andType:	Not Applicable



Final Permit-to-Install
LUCAS COMPRESSOR STATION
Permit Number: P0115969
Facility ID: 0370000164
Effective Date: 4/29/2014

A. Standard Terms and Conditions



1. Federally Enforceable Standard Terms and Conditions

- a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:
 - (1) Standard Term and Condition A.2.a), Severability Clause
 - (2) Standard Term and Condition A.3.c) through A. 3.e) General Requirements
 - (3) Standard Term and Condition A.6.c) and A. 6.d), Compliance Requirements
 - (4) Standard Term and Condition A.9., Reporting Requirements
 - (5) Standard Term and Condition A.10., Applicability
 - (6) Standard Term and Condition A.11.b) through A.11.e), Construction of New Source(s) and Authorization to Install
 - (7) Standard Term and Condition A.14., Public Disclosure
 - (8) Standard Term and Condition A.15., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations
 - (9) Standard Term and Condition A.16., Fees
 - (10) Standard Term and Condition A.17., Permit Transfers

2. Severability Clause

- a) A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.
- b) All terms and conditions designated in parts B and C of this permit are federally enforceable as a practical matter, if they are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under State law only, only if specifically identified in this permit as such.

3. General Requirements

- a) Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and re-issuance, or modification.



- b) It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c) This permit may be modified, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d) This permit does not convey any property rights of any sort, or any exclusive privilege.
- e) The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

4. Monitoring and Related Record Keeping and Reporting Requirements

- a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
 - (1) The date, place (as defined in the permit), and time of sampling or measurements.
 - (2) The date(s) analyses were performed.
 - (3) The company or entity that performed the analyses.
 - (4) The analytical techniques or methods used.
 - (5) The results of such analyses.
 - (6) The operating conditions existing at the time of sampling or measurement.
- b) Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
 - (1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Ohio EPA DAPC, Northwest District Office.



- (2) Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the Ohio EPA DAPC, Northwest District Office. The written reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See A.15. below if no deviations occurred during the quarter.
 - (3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the Ohio EPA DAPC, Northwest District Office every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
 - (4) This permit is for an emissions unit located at a Title V facility. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
- d) The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the Ohio EPA DAPC, Northwest District Office in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06.

Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

6. Compliance Requirements

- a) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the appropriate Ohio EPA District Office or contracted



local air agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the electronic signature date shall constitute the date that the required application, notification or report is considered to be "submitted". Any document requiring signature may be represented by entry of the personal identification number (PIN) by responsible official as part of the electronic submission process or by the scanned attestation document signed by the Authorized Representative that is attached to the electronically submitted written report.

Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a Responsible Official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

- b) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
 - (1) At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
 - (2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
 - (3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - (4) As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c) The permittee shall submit progress reports to the Ohio EPA DAPC, Northwest District Office concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
 - (1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - (2) An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

7. Best Available Technology

As specified in OAC Rule 3745-31-05, new sources that must employ Best Available Technology (BAT) shall comply with the Applicable Emission Limitations/Control Measures identified as BAT for each subject emissions unit.



8. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

9. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a) Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the Ohio EPA DAPC, Northwest District Office.
- b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Ohio EPA DAPC, Northwest District Office. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

10. Applicability

This Permit-to-Install is applicable only to the emissions unit(s) identified in the Permit-to-Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s) not exempt from the requirement to obtain a Permit-to-Install.

11. Construction of New Sources(s) and Authorization to Install

- a) This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.
- b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. This deadline may be extended by up to 12 months if application is made to the



Director within a reasonable time before the termination date and the permittee shows good cause for any such extension.

- c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., 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) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed by marking the affected emissions unit(s) as "permanently shut down" in "Air Services" along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update electronically will constitute notifying the Director of the permanent shutdown of the affected emissions unit(s).
- d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., 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). All records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the reporting requirements identified in this permit covering the last period the emissions unit operated.

Unless otherwise exempted, no emissions unit certified by the responsible official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31 and OAC Chapter 3745-77 if the restarted operation is subject to one or more applicable requirements.

- e) The permittee shall comply with any residual requirements related to this permit, such as the requirement to submit a deviation report, air fee emission report, or other any reporting required by this permit for the period the operating provisions of this permit were enforceable, or as required by regulation or law. All reports shall be submitted in a form and manner prescribed by the Director. All records relating to this permit must be maintained in accordance with law.

12. Permit-To-Operate Application

The permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77. The permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if operation of the proposed new or modified source(s) as authorized by this permit would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d) must be obtained before operating the source in a manner that would violate the existing Title V permit requirements.



13. Construction Compliance Certification

The applicant shall identify the following dates in the "Air Services" facility profile for each new emissions unit identified in this permit.

- a) Completion of initial installation date shall be entered upon completion of construction and prior to start-up.
- b) Commence operation after installation or latest modification date shall be entered within 90 days after commencing operation of the applicable emissions unit.

14. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

15. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

16. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable permit-to-install fees within 30 days after the issuance of any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

17. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The new owner must update and submit the ownership information via the "Owner/Contact Change" functionality in "Air Services" once the transfer is legally completed. The change must be submitted through "Air Services" within thirty days of the ownership transfer date.

18. Risk Management Plans

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

19. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.



Final Permit-to-Install
LUCAS COMPRESSOR STATION
Permit Number: P0115969
Facility ID: 0370000164
Effective Date: 4/29/2014

B. Facility-Wide Terms and Conditions



Final Permit-to-Install
LUCAS COMPRESSOR STATION
Permit Number: P0115969
Facility ID: 0370000164
Effective Date: 4/29/2014

1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:
 - a) None.



Final Permit-to-Install
LUCAS COMPRESSOR STATION
Permit Number: P0115969
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Effective Date: 4/29/2014

C. Emissions Unit Terms and Conditions



1. Emissions Unit Group -Dehydrator Group: P001,P002,

EU ID	Operations, Property and/or Equipment Description
P001	TEG dehydration Unit 1 (gas flow rate capacity 200 mmSCF/day) with reboiler (2.9 mmBtu/hrn.g.), with exhaust outlet flare (4.4 mmBtu/hr with n.g. supplement)
P002	TEG dehydration Unit 2 (gas flow rate capacity 200 mmSCF/day) with reboiler (2.9 mmBtu/hrn.g.), with exhaust outlet flare (4.4 mmBtu/hr with n.g. supplement)

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) d)(2), d)(3), d)(4), d)(5), and e)(2).

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) as effective 11/30/01	See b)(2)a and b)(2)b.
b.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/06	See b)(2)c.
c.	OAC rule 3745-17-10(B)	0.020 lbs of particulate emissions (PE) per MMBtu of actual heat input from natural gas combustion in reboiler /regenerator
d.	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) from the reboiler /regenerator combustion exhaust stack shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.
e.	40 CFR 63.1270 et seq. (MACT Subpart HHH) [In accordance with 40 CFR 63.1270(b)(2) and 63.1271, these emissions units are 'existing small glycol dehydration units' at a natural gas transmission and storage facility.]	See b)(2)d, b)(2)l, c)(1), d)(6), d)(7), e)(3), and f)(2).
f.	40 CFR 63. 1-15 (40 CFR 63.1274)	Table 2 to Subpart HHH of 40 CFR, Part 63 - Applicability of General Provisions to Subpart HHH shows which parts of the



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		General Provisions in 40 CFR 63.1-15 apply.
g.	ORC 3704.03(F) OAC rule 3745-114-01	See d)(2), d)(3), d)(4), d)(5), and e)(2)
h.	OAC rule 3745-17-11(B)	See b)(2)e. (for flare)
i.	OAC rule 3745-17-07(A)	See b)(2)f. (for flare)
j.	OAC rule 3745-18-06	See b)(2)g. (for flare)
k.	OAC rule 3745-18-06(E)	See b)(2)h. (for reboiler /regenerator)

(2) Additional Terms and Conditions

- a. Best Available Technology (BAT) requirements for VOC emissions from the flare for this emissions unit have been determined to be equivalent to 40 CFR Part 63 Subpart HHH.

The combustion emissions from the flare (NO_x, CO, SO₂, and PM₁₀) are negligible; therefore, no emission limitations will be established pursuant to OAC rule 3745-31-05(A)(3) as effective 11/30/01.

The combustion emissions from the reboiler /regenerator (VOC, NO_x, CO, SO₂, and PM₁₀) are negligible; therefore, no emission limitations will be established pursuant to OAC rule 3745-31-05(A)(3) as effective 11/30/01.

- b. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, then these emission limits/control measures no longer apply.

It should be noted that the 40 CFR Part 63 Subpart HHH requirements will remain applicable (under 40 CFR Part 63 authority) after the above SIP revisions are approved by U.S. EPA and OAC rule 3745-31-05(A)(3) authority expires.

- c. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the NO_x, CO, SO₂, and PM₁₀ emissions from the flare and the reboiler /regenerator for this air contaminant source since the



uncontrolled potentials to emit for NO_x, CO, SO₂, and PM₁₀ are each less than ten tons per year.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the uncontrolled VOC emissions from the reboiler /regenerator since the potential to emit for VOC for this air contaminant source is less than ten tons per year.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC from the flare, since the potential to emit for VOC, taking into account federally enforceable control requirements from 40 CFR 63 Subpart HHH (for the flare), for this air contaminant source is less than ten tons per year.

The potential to emit (PTE) for VOC emissions from the flares for each unit is 9.2 tons per year and was determined by adding natural gas /organics combustion emissions (off-gas from the re-boiler and the flash tank), and the 2% 'pass-through' uncontrolled emissions, from the flares. Combustion emissions were determined by multiplying the AP-42 emission factor from Table 13.5-1 (Jan 1995) of 0.14 lb VOC /MMBtu by the maximum firing capacity (two at 4.4 mMBtu/hr each). Flare emissions from pass-through were determined by employing the Geotechnical ResourcesInc (GRI) GLYCalc, Version 4.0 computer program (for the dehydrator contribution to the emissions), and flare control efficiency of 98 percent by weight. The resulting hourly emission rate of combustion and uncontrolled emissions (4.20 lbs/hr) was multiplied by a maximum operating schedule of 8760 hours per year.

- d. The potential to emit for benzene emissions [as per 40 CFR 63.1282(a)] from the flares for each unit is 0.9 ton per year and was determined by adding natural gas /organics benzene emissions (off-gas from the re-boiler and the flash tank), and the 2% 'pass-through' uncontrolled emissions, from the flares. All benzene emissions were determined by employing the Geotechnical ResourcesInc (GRI) GLYCalc, Version 4.0 computer program (GLYCalc includes flare control efficiency of 98 percent by weight). The resulting hourly emission rate of emissions (0.165 lbs/hr per unit) was multiplied by a maximum operating schedule of 8760 hours per year.

Benzene emissions from natural gas combustion from the re-boiler /regenerator make negligible contribution to PTE for benzene.

- e. The uncontrolled mass rate of particulate emissions from the flare is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply because the process weight rate is equal to zero. "Process weight" is defined in OAC rule 3745-17-01(B)(17).
- f. The emissions from the flare are exempt from the visible PE limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.



- g. There are no sulfur dioxide emission limitations established by OAC rule 3745-18 for equipment associated with these emissions units that are not considered "fuel burning equipment" because the process weight rate is less than 1000 pounds per hour and is therefore exempt pursuant to OAC rule 3745-18-06(C).
- h. The combustion emissions from the regenerator are exempt from the requirements of OAC rule 3745-18-06 in accordance with OAC rule 3745-18-06(A).
- i. This emission unit(s) must achieve compliance with the 40 CFR Part 63 Subpart HHH requirements under this permit by October 15, 2015, except as provided in 40 CFR 63.6(i).
[40 CFR 63.1270(d)(3)]

c) Operational Restrictions

- (1) The permittee shall burn only natural gas in this emissions unit.
- (2) The permittee shall comply with the applicable restrictions required under 40 CFR Part 63, Subpart HHH, including the following sections:

63.1275(b)(1)(iii)	must meet annual BTEX emission limit according to Equation 1 (of this Title 40 CFR section)
63.1275(b)(1)(iii)(A)	must connect each dehydrator process vent to a control device (i.e. flare) through a closed-vent system
63.1275(b)(2)	safety devices that vent directly to the atmosphere may be used on the air emission control equipment
63.1281(c)(1)	closed-vent system shall route all gases, vapors, and fumes emitted from the material in an emissions unit to a control device
63.1281(c)(2)	closed-vent system shall be designed and operated with no detectable emissions
63.1281(c)(3)	requirements for closed-vent system bypass devices
63.1281(f)(1)(iii)	use of a flare that is designed and operated in accordance with the requirements of 40 CFR 63.11(b)
63.1281(f)(2)(i)	flare shall be operating at all times (may vent more than one unit to a control device)
63.1281(f)(2)(ii)	flare shall demonstrate compliance according to the requirements of 63.1282(h) [where flare manufacturer has tested in accordance with 63.1282(g)].



d) Monitoring and/or Recordkeeping Requirements

- (1) For each day during which the permittee burns a supplemental 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 permit to install for emissions units P001 and P002 was evaluated based on the actual materials and the design materials and the design parameters of the emissions units' exhaust system, as specified by the permittee in the permit application. The "Toxic Air Contaminant Statue", ORC 3704.03(F), was applied to these emissions units for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year (in addition to benzene that emits less than one ton per year) using an air dispersion model such as SCREEN 3.0, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration results from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxics Emissions, Option A", as follows:
 - a. the exposure limit, expressed as time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound emitted from the emission units, (as determined from the raw materials processed has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):
 - i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or
 - ii. STEL (short term exposure limit) or the ceiling value from the ACGIH "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.
 - b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
 - c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions units, i.e., "X" hours per day and "Y" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the MAGLC:

$$TLV/10 \times 8/X \times 5/Y = 4 TLV/XY = MAGLC$$



- d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or "worst case" toxic contaminant(s):

Toxic Contaminant: Benzene TLV (mg/m³): 1.5973
Maximum Hourly Emission Rate (lbs/hr): 0.3306
Predicted 1-Hour Maximum Ground-Level Concentration (µg/m³): 8.317
MAGLC (µg/m³): 38.03

Toxic Contaminant: Toluene TLV (mg/m³): 188.405
Maximum Hourly Emission Rate (lbs/hr): 0.4810
Predicted 1-Hour Maximum Ground-Level Concentration (µg/m³): 12.10
MAGLC (µg/m³): 4485.8

Toxic Contaminant: Xylene TLV (mg/m³): 434.192
Maximum Hourly Emission Rate (lbs/hr): 0.6678
Predicted 1-Hour Maximum Ground-Level Concentration (µg/m³): 16.81
MAGLC (µg/m³): 10337.9

The permittee, has demonstrated that emissions of benzene, toluene and xylene, from emissions units P001 and P002, is calculated to be less than eighty per cent of the MAGLC; any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statue", ORC 3704.03(F).

- (3) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:
- a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower TLV than the lowest TLV previously modeled;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and
 - c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

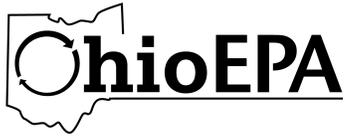
If the permittee determines that the "Toxic Air Contaminant Statue" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statue", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification" or if a new toxic is emitted, or the modeled toxic(s) is/are expected to



exceed the previous modeled level(s), then the permittee shall apply for and obtain a final permit-to-install prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit-to-install application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and may require the permittee to submit a permit-to-install application for the increased emissions.

- (4) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statue", ORC 3704.03(F):
 - a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);
 - b. the MAGLC for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statue", ORC 3704.03(F);
 - c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statue", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and
 - d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statue", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.
- (5) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statue", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.
- (6) The permittee shall comply with the applicable inspection /monitoring requirements required under 40 CFR Part 63 Subpart HHH, including the following sections:

63.1283(b)	[where flare manufacturer has tested in accordance with 63.1282(g)] shall develop an inspection and maintenance plan for the flare - shall conduct semi-annual inspections, with maintenance and replacement of flare components made in accordance with the plan
63.1283(c)(2)(i)	procedures for initial and annual inspections, for closed-vent system joints, seams, or other connections that are permanently or semi-permanently sealed (e.g., a welded joint between two sections of hard piping or a bolted or



	gasketed ducting flange)
63.1283(c)(2)(ii)	procedures for initial and annual leak detection inspections and annual visual inspections, for closed-vent system components other than those specified in paragraph (c)(2)(i)
63.1283(c)(2)(iii)	bypass devices - inspection, monitoring, and other requirements
63.1283(c)(3), (4)	leak detections - timeframes for repair, provision for delay of repair
63.1283(c)(5), (6)	provisions for 'unsafe' and 'difficult' inspection and repair for closed-vent system
63.1283(d)(1)(i)	each parametric monitoring data reading required every hour (if applicable)
63.1283(d)(1)(ii)	requirements to prepare a site-specific monitoring plan
63.1283(d)(1)(iii), (iv)	QA /QC requirements for monitoring equipment
63.1283(d)(3)(i)(C)	heat sensing monitoring device for flare
63.1283(d)(3)(i)(H)(1)	determine actual average inlet waste gas flowrate using the model GRI- GLYCalc™, Version 3.0 or higher, ProMax, or AspenTech HYSYS
63.1283(d)(3)(i)(H)(2)	use a heat sensing monitoring device equipped with a continuous recorder that indicates the continuous ignition of the pilot flame
63.1283(d)(6), (7)	definitions /determinations for control device /closed-vent system excursion /noncompliance
63.1283(d)(9)	Nothing in paragraphs 40 CFR 63.1283 (d)(1) through (d)(8) shall be construed to allow or excuse a monitoring parameter excursion caused by any activity that violates other applicable provisions of Subpart HHH.

- (7) The permittee shall comply with the applicable recordkeeping requirements required under 40 CFR Part 63 Subpart HHH, including the following sections:

63.1284(a)	recordkeeping requirements according to Subpart A are in Table 2 to Subpart HHH
63.1284(b)(1)	records requirements, retention - general



63.1284(b)(2)	records requirement from certain part of Subpart A
63.1284(b)(3)	records for monitoring systems - general
63.1284(b)(5)	records for unsafe-to-inspect parts of closed-vent system
63.1284(b)(6)	records for difficult-to-inspect parts of closed-vent system
63.1284(b)(7), (8)	records for leak inspection for closed-vent system (detailed)
63.1284(f)	malfunction records
63.1284(g)	records for control device tests under 63.1282(g), to comply with 63.1281(f)(1)(iii)
63.1284(h)	records of the semi-annual flare maintenance inspections

e) Reporting Requirements

- (1) The permittee shall submit deviation (excursion) reports that identify each day when a supplemental fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
- (2) The permittee shall submit annual reports to the appropriate Ohio EPA District Office of local air agency, documenting any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the "Toxic Air Contaminant Statue", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. If no changes to the emissions unit(s) or the exhaust stack have been made, then the report shall include a statement to this effect. This report shall be postmarked or delivered no later than January 31 following the end of each calendar year.
- (3) The permittee shall comply with the applicable reporting requirements required under 40 CFR Part 63 Subpart HHH, including the following sections:

63.1285(a)	reporting requirements according to Subpart A are in Table 2 to Subpart HHH
63.1285(b)(1)	initial notification requirement for existing sources
63.1285(b)(2)	monitor performance evaluation report (if applicable)
63.1285(b)(3)	notification of planned date for flare performance test
63.1285(b)(6)	malfunction reporting
63.1285(d)	Notification of Compliance Status reporting requirement
63.1285(d)(5)	results of continuous monitoring system performance



	evaluations (if applicable)
63.1285(d)(6)	deference to Title V compliance reporting
63.1285(d)(9)	affirmative statement of compliance
63.1285(d)(11)	reporting for flares tested under 1282(g) (i.e. tested by manufacturer) must include data under 1282(g)(8)
63.1285(d)(12)	further reporting for flares tested under 1282(g)
63.1285(e)	Periodic Reports
63.1285(e)(1)	reporting frequency
63.1285(e)(2)(ii)(E)	visible emissions excursion reporting (performance test)
63.1285(e)(2)(iii)	reporting for leak inspection for closed-vent system
63.1285(e)(2)(iv)	reporting for closed-vent system bypass (if applicable)
63.1285(e)(2)(vi)	'negative declaration' reporting
63.1285(e)(2)(xii)	reporting for semi-annual inspections for flare under 1284(h)
63.1285(e)(2)(xiii)	responsible official certification
63.1285(f)	notification of process change (if applicable)
63.1285(g)	electronic reporting of performance test results to US EPA (if applicable)

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:

0.020 lb of PE per MMBtu of actual heat input from natural gas combustion in regenerator

Applicable Compliance Method:

The permittee shall demonstrate compliance by multiplying the AP-42 emission factor from Table 1.4-2 (revised 7/1998), of 1.9 lbs PE/MMscf by the heat content of scf/1020 Btu.

If required, the permittee shall demonstrate compliance with the PE limitation above pursuant to OAC rule 3745-17-03(B)(9).



b. Emission Limitation:

Visible PE emissions from the regenerator combustion exhaust stack shall not exceed 20 percent opacity, as a six-minute average, except as otherwise provided by rule.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the visible PE limitation in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

- (2) The permittee shall comply with the applicable compliance requirements as required under 40 CFR Part 63 Subpart HHH, including the following sections:

63.1282(a)(2)(i)	determine actual average benzene or BTEX emissions using the model GRI-GLYCalc™, Version 3.0 or higher
63.1282(b)	procedures for determining 'no detectable emissions' [Method 21, 40 CFR 60, Appendix A]
63.1282(h)(1)	inlet gas flowrate shall meet the range specified by the manufacturer - flowrate shall be calculated as specified in 40 CFR 63.1283(d)(3)(i)(H)(1)
63.1282(h)(2)	a pilot flame shall be present at all times of operation - the pilot flame shall be monitored in accordance with 40 CFR 63.1283(d)(3)(i)(H)(2).
63.1282(h)(3)	flare shall be operated with no visible emissions, except for periods not to exceed a total of 2 minutes during any hour. A visible emissions test using Method 22, 40 CFR part 60, Appendix A, shall be performed each calendar quarter. The observation period shall be 1 hour and shall be conducted according to EPA Method 22, 40 CFR part 60, Appendix A.
63.1282(h)(4)	compliance determination for 63.1282(h), including provisions /instructions when failing the visible emissions test from (h)(3)

g) Miscellaneous Requirements

- (1) None.