



2/13/2015

Certified Mail

Mr. Mark Borer
 Summit Ethanol dba POET Biorefining - Leipsic
 3875 State Route 65
 Leipsic, OH 45856

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

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE
 Facility ID: 0369000051
 Permit Number: P0117765
 Permit Type: Renewal
 County: Putnam

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA) Air Pollution Permit-to-Install and Operate (PTIO) which will allow you to install, modify, and/or operate the described emissions unit(s) in the manner indicated in the permit. 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 PTIO 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)352-8461 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,



Erica R. Engel-Ishida, Manager
Permit Issuance and Data Management Section, DAPC

Cc: Ohio EPA-NWDO



Response to Comments

Facility ID:	0369000051
Facility Name:	Summit Ethanol dba POET Biorefining - Leipsic
Facility Description:	Dry corn milling ethanol production facility
Facility Address:	3875 State Route 65 Leipsic, OH 45856 Putnam County
Permit:	P0117765, Permit-To-Install and Operate - Renewal
A public notice for the draft permit issuance was published in the Ohio EPA Weekly Review and appeared in the Putnam County Sentinel on 12/03/2014. The comment period ended on 01/02/2015.	
Hearing date (if held)	
Hearing Public Notice Date (if different from draft public notice)	

The following comments were received during the comment period specified. Ohio EPA reviewed and considered all comments received during the public comment period. By law, Ohio EPA has authority to consider specific issues related to protection of the environment and public health. Often, public concerns fall outside the scope of that authority. For example, concerns about zoning issues are addressed at the local level. Ohio EPA may respond to those concerns in this document by identifying another government agency with more direct authority over the issue.

In an effort to help you review this document, the questions are grouped by topic and organized in a consistent format. PDF copies of the original comments in the format submitted are available upon request.

1. Topic: None.

a. Company Comment

b. Agency Response

- a. Comment: Multiple locations state that slurry and distillation shall be shut down when operating under the scrubber bypass alternate operating scenario. The application was submitted with the intent to continue to operate both slurry and distillation during scrubber bypass operation. The PTE calculations are based on stack testing of the scrubber inlet with slurry and distillation operational. The lower right box on page 15 of the submitted PTE calculations shows the stack test information that was used to estimate emissions during scrubber bypass. The test was completed on June 6, 2014 at the POET Biorefining – Portland facility in Portland, Indiana. During this test, all flows that normally route to the scrubber were operating, including slurry and distillation.

In POET's formal comment submittal, we will note each location that references shut down of slurry and distillation and ask for that to be removed.

The application submittal did request changes to operating conditions when maintenance occurs on the scrubber. The draft permit provides for changes in operation and emission limits



for P007, specifically the scrubber and the RTO. However, on a facility-wide basis, the emissions remain the same. The application was submitted planning to keep slurry and distillation operational during scrubber bypass. POET intends to operate in this manner and has committed to USEPA to complete stack testing under this operational scenario to verify compliance with the emission limits set by OEPA. Therefore, POET requests that language associated with shutting slurry and distillation down during scrubber bypass operation be removed from the permit. These locations include:

- Condition 4.b)(2)d [which should be 4.b)(2)h] on page 33 of 126 of Permit Number P0117883.
 - Condition 4.c)(4) on page 34 of 126 of Permit Number: P0117883.
 - Condition 4.d)(4) on page 37 of 126 of Permit Number: P0117883.
 - Condition 4.d)(6) on page 37 of 126 of Permit Number: P0117883.
- b. Response: Since stack testing was completed with slurry and distillation operating and emission limits from the application reflect this, change will be made.
- a. Comment: Multiple locations have language that relate to the Toxic Air Contaminant Statute. In many locations the language has been modified from the existing Title V language. In addition, contaminants emitted at 1 or more tons/year are listed in the permit, but were not previously listed in the permit . POET has several questions regarding this topic. A general explanation from OEPA would be appreciated: What are the values based on? Statement in PER refer to actual *potential* to emit? What is POET's obligation moving forward?, etc. (One example is pages 20-22 of P0117883.) On page 38 of P0117883, several numbers have been reduced. Why?
- b. Response: We believe some of the air toxic language listed in the Title V was incorrectly updated to the new air toxic policy language. Air toxic review is a 'new source review' policy and should be carried forward as-is. With the many modifications of the permits for this facility, air toxic language was modified/updated, when it should not have been. So the changes you see is were brought back from the initial permits for these emissions units.
- a. Comment: The sections discussing Testing Requirements have standard language that specifies a test method followed by "...as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."" At the end of this sentence, POET would like a phrase that states, "or other methods approved by OEPA." POET has used Method 320 during stack testing for VOCs after it was accepted by OEPA in the required stack test plan. Addition of this phrase would allow flexibility in test methods provided the OEPA has accepted such test methods. (One example is page 28 of P0117883.)
- b. Response: Agency will make change to include "or other methods approved by OEPA"
- a. Comment: A 12 month rolling average method is used to show compliance for P012 and B001 & B002. A calendar years method is used to show compliance for other units. What is OEPA's philosophy on using two different compliance methods?
- b. Response: P012, B001 and B002 have federally enforceable synthetic minor restrictions to limit the potential to emit of the source. Pursuant to OAC rule 3745-31-05(D)(2), in order to be federally enforceable limit that restrictions the PTE, the requirement must have an annual and short-term limit on emissions and a short-term limit on production or operation. Because the



restriction on production or operation is a rolling restriction per OAC rule 3745-31-05(D)(2), it is OEPA and USEPA's policy to fulfill the requirement of an annual and short-term emission limitation by establishing a rolling emission limitation. The other units do not have federally enforceable restrictions to restrict the potential to emit, which is why they don't have rolling limits.

- a. Comment: Page 32, P007, condition 4.b)(2)b. (at bottom of page, note there are two b sections) The Title V permit includes P010 in this statement of BAT. The PTIO does not. This is also the case for Page 41, P007 condition 4.f)(1)f and other places (page 118).
- b. Response: The agency found that based on several modifications of permits at the facility, P010 was inadvertently carried forward in the group for these emissions units in the Title V permit. But based on the last accurate PTIO's for P007 (PTIO #P0110730) and P010 (PTIO# P0107812), it was appropriate to remove P010 from the paragraphs you mention. We will correct the duplication of paragraph 'b'.
- a. Comment: Page 34, P007, condition 4.d)(1)c.i. – for clarification, if there is an electrical outage, which is beyond the plants control, the plant should report “no corrective action necessary, utility system operations outside of plant’s control”.
- b. Response: Yes
- a. Comment: Page 36, P007, condition 4.d)(2)d. – Pressure drop is an important parameter to monitor to ensure proper maintenance of a scrubber. However, strict maintenance of a pressure drop is not imperative for compliance with emission limits. Rising pressure drops can indicate mineral or biological fouling of the scrubber media, which can eventually negatively impact performance. The minimum pressure drop usually occurs after cleaning of the scrubber, although this may not always be the case. Monitoring of the pressure drop is important to observe trends, as increasing or decreasing pressure drops may be indicative of changes which affect the performance of the scrubber. POET prefers that language in the current Title V permit be maintained, “...maintain in accordance with the manufacturer’s recommendations, instructions and operating manual(s).”
- b. Response: This will be updated due to the fact that the last accurate PTIO for this emissions unit states as such (PTIO# P011730).
- a. Comment: Page 36, P007, condition 4.d)(2)e. - Monitoring of water flow rate occurs with the plant’s Data Collection System. Due to operational fluctuations inherent in the process, the values jump around within a short period of time. Therefore, compliance with an instantaneous water flow rate could be overly burdensome and/or so restrictive that demonstrating compliance would be difficult. POET requests that OEPA allow water flow rate to be averaged over an hourly period to demonstrate compliance.

As discussed, POET would like the language related to recording water flow rate [condition 4.d)(2)a.]and what is a deviation [condition 4.d)(2)e.] to be clearly stated. The language in condition 4.d)(2)a., which allows water flow rate to be recorded once per shift, is acceptable. However, POET requests language in condition 4.d)(1)d. be modified to recognize that the water flow rate target was established by stack testing over three one-hour periods. The following, suggested language is similar to the RTO temperature language in 4.d)(1)d. “The average water flow rate to the scrubber, for any 3-hour block of time when the emission unit is in operation, shall not be less than the three hour average water flow rate during the most recent



emission test that demonstrated the emission unit was in compliance.”

For further clarification and because neither section discusses a range, please change the titles on condition 4.d)(2) d. and e. to

“d. Scrubber pressure drop”
“e. Scrubber water flow rate”

- b. Response: After several meetings and looking at the unit on site, it appears that the scrubber parametric monitoring is not integral to how the unit is controlling pollutants but is more for the facility’s benefit in recovering ethanol. Therefore, the terms and conditions will not be put in the permit for normal operating conditions.

In the case of the RTO bypass when the scrubber alone is operating, the water flow rate will need to be monitored per the stack test conducted on 2011 at 50 gpm.

- a. Comment: Page 40, P007, condition 4.f)(1)a. – Emission testing is required about 6 months prior to 1/14/2018. If emission testing occurs prior to 1/14/2018, can that be used in lieu of testing between August, 2017 and January 2018? POET has an agreement with US EPA to perform stack testing within 125 days of permit issuance. POET requests the language in condition 4.f)(1)a. be changed to require stack testing within 180 days of permit issuance.
- b. Response: Yes. Language will be changed to include stack testing within 180 days of permit issuance.
- a. Comment: Page 41, P007, condition 4.f)(1)(c)iv - POET request that USEPA Method 320 be included for VOC testing.
- b. Response: The agency will add, “or other test methods approved by the Agency”.
- a. Comment: Page 78, P902 title – Please change “DDCS” to “DDGS” on Table of Contents, page 2 and page 78.
- b. Response: Change will be made
- a. Comment: Page 105, T003,T004 condition 13.b)(1)a. and 13.b)(2)a.i. and 13.f)(1)a. – Because T003 and T004 has been grouped into an emission unit, POET requests that values used in this section be noted as per emission unit. For example, “0.20 ton volatile organic compounds (VOC)/year” be changed to “0.20 ton volatile organic compounds (VOC)/year/emission unit”.
- b. Response: Agency will adjust the language to demonstrate the emission limit is for each emissions unit individually.
- a. Comment: Page 108, T003,T004 condition 13.c)(1)b. – Because throughput may not be equal between the two tanks, please state maximum throughout put for the group as 79,122,750 gallons (79 million gallons). Note this is not denaturated, as this number varies based on how much E85 is loaded out.
- b. Response: The emission limit for emissions unit T003 and T004 was based on 39,561,375 gallons for each tank. Therefore the operational restriction shall remain unless the facility



requests a Chapter 31 modification and increases the PTE for each tank based on 79,122,750 gallons.

- a. Comment: Page 119, P008,P009 condition 15.d(1)d. – This condition regarding RTO temperature conflicts the condition in P007 condition 4.d)(1)d. POET is operating as stated in P007 (3 hour average temperature).
 - b. Response: The discrepancy will be rectified.
 - a. Comment: May want to clarify use of 79 MG/year is denatured ethanol. It is not always stated as denatured ethanol.
 - b. Response: Change will be made.
 - a. Comment: For P012, condition c)(1) states only distillate oil (fuel oil numbers 1 or 2) shall be used. During certain periods of the year (winter), it is advantageous to use a diesel fuel additive. For clarification, POET requests language which allows the use of fuel additives.
 - b. Response: Prior to the phone call, POET provided OEPA with a fuel additive certification letter for Cen-Pe-Co Atomic Powered Diesel Fuel Additive. As discussed, OEPA stated that the minor amount of fuel additive used does not significantly change the fuel. Use of the additive is acceptable and OEPA does not see a need to modify the proposed language.
 - a. Comment: As you are aware, POET is utilizing a PEM system to meet the NOx monitoring requirements for B001 and B002. Use of a PEMS in lieu of a CEMS is allowed by condition 2.d)(5). POET would like the permit to clarify this fact and requests the following changes to the draft permit:
 - a. Change 2.d)(1)(a) to read, “the NOx emission rate, in lbs/day, as quantified by the Continuous Emission Monitoring (CEM) system or the Predictive Emission Monitoring (PEM) system; and”
 - b. Include as the second sentence in 2.d)(5) “As of permit issuance, POET Biorefining – Leipsic is utilizing a PEMS system in lieu of a CEMS.”
- For clarification, sections 2.d)(2), (3) and (4) apply only to CEMS, correct? Also, “continuous NOx monitoring system” is used in 2.(b)(2)b., (d)(4), (d)(5), and (e)(3). Does use of this term equal CEMS in all cases? If it refers to CEMS and PEMS, perhaps modifying the language would be appropriate. (CEMS, PEMS and “continuous or predictive NOx monitoring systems”).
- b. Response: Changes will be made. PEMS language will be inserted in place of CEMS.
 - a. Comment: Depending on the discussion for #12 above (combined tanks), the same may apply to emission limits for the boilers – emission limits are per emission unit.
 - b. Response: The boilers have both group limit and individual limits. The agency will clarify as it is appropriate.



FINAL

**Division of Air Pollution Control
Permit-to-Install and Operate
for
Summit Ethanol dba POET Biorefining - Leipsic**

Facility ID:	0369000051
Permit Number:	P0117765
Permit Type:	Renewal
Issued:	2/13/2015
Effective:	2/13/2015
Expiration:	2/13/2020



Division of Air Pollution Control
Permit-to-Install and Operate
for
Summit Ethanol dba POET Biorefining - Leipsic

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Authorization

Facility ID: 0369000051
Application Number(s): A0051664
Permit Number: P0117765
Permit Description: Due to the recent USEPA decision concerning the Tailoring rule, POET Biorefining Leipsic (POET) is no longer considered a major stationary source for GHGs, thus this permit action is to revert the facility back to a FEPTIO source.
Permit Type: Renewal
Permit Fee: \$0.00
Issue Date: 2/13/2015
Effective Date: 2/13/2015
Expiration Date: 2/13/2020
Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

Summit Ethanol dba POET Biorefining - Leipsic
3875 State Route 65
Leipsic, OH 45856

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

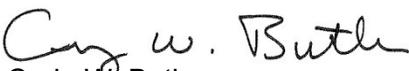
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Northwest District Office
347 North Dunbridge Road
Bowling Green, OH 43402
(419)352-8461

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



Authorization (continued)

Permit Number: P0117765
 Permit Description: Due to the recent USEPA decision concerning the Tailoring rule, POET Biorefining Leipsic (POET) is no longer considered a major stationary source for GHGs, thus this permit action is to revert the facility back to a FEPTIO source.

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

Emissions Unit ID: P012
 Company Equipment ID: emergency generator
 Superseded Permit Number:
 General Permit Category and Type: Not Applicable

Group Name: Boilers

Emissions Unit ID:	B001
Company Equipment ID:	Boiler 1
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	B002
Company Equipment ID:	Boiler 2
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



Final Permit-to-Install and Operate
Summit Ethanol dba POET Biorefining - Leipsic
Permit Number: P0117765
Facility ID: 0369000051
Effective Date: 2/13/2015

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 [DO/LAA] 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.



Final Permit-to-Install and Operate
Summit Ethanol dba POET Biorefining - Leipsic
Permit Number: P0117765
Facility ID: 0369000051
Effective Date: 2/13/2015

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. 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 District Office or 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 required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services.



Final Permit-to-Install and Operate
Summit Ethanol dba POET Biorefining - Leipsic
Permit Number: P0117765
Facility ID: 0369000051
Effective Date: 2/13/2015

C. Emissions Unit Terms and Conditions



1. P012, emergency generator

Operations, Property and/or Equipment Description:

2000 kW diesel fired emergency generator

- 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. b)(1)b., b)(2)b., c)(2), d)(1), e)(1) and f)(1)d.
- 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)	Carbon monoxide (CO) emissions shall not exceed 1.16 lb/hr. Nitrogen oxides (NO _x) emissions shall not exceed 53.27 lb/hr. Volatile organic compound (VOC) emissions shall not exceed 0.93 lb/hr. See b)(2)a.
b.	OAC rule 3745-31-05(D)	CO emissions shall not exceed 0.06 ton per rolling, 12-month period. NO _x emissions shall not exceed 2.66 tons per rolling, 12-month period. VOC emissions shall not exceed 0.05 ton per rolling, 12-month period.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		See b)(2)b. and c)(2)
c.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	0.40 lb particulate matter less than 10 microns in size (PM10)/hr; 0.02 ton PM10/yr 10.56 lb sulfur dioxide (SO ₂)/hr; 0.53 ton SO ₂ /yr See b)(2)c.
d.	OAC rule 3745-31-05(A)(3), as effective 12/01/06	See b)(2)d.
e.	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
f.	OAC rule 3745-17-11(B)(5)(b)	0.062 lb PE/mmBtu of actual heat input
g.	OAC rule 3745-18-06(G)	The maximum emission of SO ₂ shall not exceed 0.5 lb/mmBtu actual heat input.

(2) Additional Terms and Conditions

- a. The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D) and OAC rule 3745-17-11(B)(5)(b).
- b. This permit establishes the following federally enforceable emission limitations based on an hours of operation restriction [See section c)(2)] for purposes of avoiding PSD applicability:
 - i. 2.66 tons NO_x per rolling, 12-month period;
 - ii. 0.06 ton CO per rolling, 12-month period; and
 - iii. 0.05 ton VOC per rolling, 12-month period.
- c. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC rule 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 pollutant 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.



- d. 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 PE, PE equal to or less than 10 microns in size (PM10) and sulfur dioxide (SO₂) emissions from this air contaminant source since the calculated annual emission rate for PE, PM10 and SO₂ emissions is less than ten tons per year taking into account the federally enforceable restriction on the hours of operation under OAC rule 3745-31-05(D).

The annual emission rate for this emissions unit is 0.53 TPY of SO₂; determined by multiplying the USEPA, AP-42 emission factor (Table 3.4-1) of 0.004 pounds per horsepower-hour (lb/Hp-hr) by the maximum power output of 2640 Hp, the maximum operating schedule of 100 hours per year and 0.0005 ton/pound.

The annual emission rate for this emissions unit is 0.02 TPY of PM10; determined by multiplying the manufacturer's specified emission factor of 0.075 lbs/Hp-hr by the maximum power output of 2640 Hp, the maximum operating schedule of 100 hours per year and 0.0005 ton/lb. All PE is assumed to be PM10.

c) Operational Restrictions

- (1) The permittee shall combust only distillate fuel oil in this emissions unit.

The oil combusted in this emissions unit shall only be distillate oil (fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396-78, 89, 90, 92, 96, or 98, "Standard Specification for Fuel Oils"). The sulfur content of the distillate oil shall contain no more than 0.5 weight percent sulfur.

- (2) The maximum annual hours of operation for this emissions unit shall not exceed 100 hours per year, based upon a rolling 12-month summation of the operating hours.

This emissions unit has been in operation for more than 12 months and, as such, the permittee has existing records to generate the rolling, 12-month summation of the hours of operation, upon issuance of this permit.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain monthly records of the following information for this emissions unit:

a. the hours of operation;

b. the calculated monthly emission rate for CO using the following equation: CO emissions in tons = [hours of operation] x [potential hourly CO emissions] x [1 ton/2000 lb] = [d](1)a.] x [1.16 lb CO] x [1/2000 lb];

c. the calculated monthly emission rate for NO_x using the following equation: NO_x emissions [in tons] = [hours of operation] x [potential hourly NO_x emissions] x [1 ton/2000 lb] = [d](1)a.] x (53.27 lbNO_x) x [1/2000 lb];



- d. the calculated monthly emission rate of VOC using the following equation: VOC emissions [in tons] = [hours of operation] x [potential hourly VOC emissions] x [1 ton/2000 lb] = [d)(1)a.] x [0.93 lb VOC] x [1/2000 lb]; and
 - e. the following summations:
 - i. the rolling, 12-month CO emission rate, in tons;
 - ii. the rolling, 12-month NO_x emission rate, in tons;
 - iii. the rolling, 12-month VOC emission rate, in tons; and
 - iv. the rolling, 12-month number of hours of operation.
- (2) For each day during which the permittee burns a fuel other than diesel fuel the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit. The permittee shall also maintain documentation on the sulfur content of all fuels received.
- (3) The permittee shall use records of fuel supplier certification to demonstrate compliance with the operational restriction in section c)(1). Records of fuel supplier certification shall include the following information:
- a. The name of the oil supplier; and
 - b. A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in c)(1) above.
- e) Reporting Requirements
- (1) The permittee shall submit quarterly deviation (excursion) reports that identify:
- a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
 - i. the rolling, 12-month restriction of 100 hours; and
 - ii. the rolling, 12-month emission limitations for CO, NO_x, and VOC.
 - b. the probable cause of each deviation (excursion);
 - c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
 - d. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been



established and approved by the Director (the appropriate District Office or local air agency).

- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
- (3) The permittee shall identify in the annual permit evaluation report the following information during the 12-month reporting period for this/these emissions unit(s):
 - a. any deviations from 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 to remedy the deviations;

If no deviations occurred during the reporting period, the permittee shall identify in the permit evaluation report that no deviations occurred during the reporting period.

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:
1.16 lb CO/hr

Applicable Compliance Method:

Compliance with the hourly allowable CO emission limitation shall be determined by multiplying an emission factor of 0.20 g/hp-hr (supplied by the manufacturer), a maximum capacity of 2640 hp, and by a conversion factor of lb/453.59 gram.

If required, compliance with the hourly allowable CO emission limitation shall be determined according to test Methods 1-4, and 10, as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

- b. Emission Limitation:
53.27 lbsNO_x/hr

Applicable Compliance Method:

Compliance with the hourly allowable NO_x emission limitation shall be determined by multiplying an emission factor of 9.16 g/hp-hr (supplied by the manufacturer) by a maximum capacity of 2640 hp, and then by a conversion factor of lb/453.59 gram.



If required, compliance with the hourly allowable NO_x emission limitation shall be determined according to test Methods 1-4, and 7, as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

- c. Emission Limitation:
0.93 lbs VOC/hr

Applicable Compliance Method:

Compliance with the hourly the hourly allowable VOC emission limitation shall be determined by multiplying an emission factor of 0.16 g/hp-hr (supplied by the manufacturer) by a maximum capacity of 2640 hp, and then by a conversion factor of lb/453.59 gram.

If required, compliance with the hourly allowable VOC emission limitation shall be determined according to test Methods 1-4, and 25 or 25A, as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

- d. Emission Limitation:
0.06 ton CO per rolling, 12-month period.
2.66 tons NO_x per rolling, 12-month period.
0.05 ton VOC per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the ton per rolling 12-month period emission limitations above shall be demonstrated by the record keeping requirements established in section d)(1) of this permit.

- e. Emission Limitation:
10.56 lbs SO₂/hr and 0.53 ton SO₂/yr

Applicable Compliance Method:

Compliance with the hourly allowable SO₂ emission limitation shall be determined by multiplying an AP-42 emission factor (Table 3.4-1) of 0.004 lb/Hp-hr by the maximum output of 2640 Hp, the maximum operating schedule of 100 hrs/yr and 1 ton/2000 lbs.

The annual emission limitation shall be determined by multiplying the lb SO₂/hr by a maximum operating schedule of 100 hrs/yr and dividing 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance with the annual emission limitation shall also be demonstrated.

If required, compliance with the hourly allowable SO₂ emission limitation shall be determined in accordance with test Methods 1-4 and 6 of 40 CFR, Part 60, Appendix A.

- f. Emission Limitation:
0.40 lbs PM₁₀/hr and 0.02 ton PM₁₀/yr



Applicable Compliance Method:

Compliance with the hourly allowable PM10 emission limitation shall be determined by multiplying an emission factor of 0.075 lbs/Hp-hr (supplied by the manufacturer) by a maximum output of 2640 Hp, the maximum operating schedule of 100 hrs/yr and 1 lb/2000 tons.

The annual emission limitation shall be determined by multiplying the lb PM10/hr by a maximum operating schedule of 100 hrs/yr and dividing 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance with the annual emission limitation shall also be demonstrated.

If required, compliance with the hourly allowable emission limitation shall be determined in accordance with test Methods 1-4 of 40 CFR, Part 60, Appendix A and 201/201A and 202 of 40 CFR, Part 51, Appendix M.

- g. Emission Limitation:
0.062 lb PE/mmBtu actual heat input

Applicable Compliance Method:

Compliance shall be based upon an emission factor of 0.062 lb/mmBtu. This emission factor is specified in the U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.4, Table 3.4-2 (10/96).

If required, compliance shall be determined in accordance with OAC rule 3745-17-03(B)(10).

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

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with OAC rule 3745-17-03(B)(1).

- i. Emission Limitation:
0.5 lb SO2/mmBtu actual heat input

Applicable Compliance Method:

If required, compliance shall be determined in accordance with OAC rule 3745-18-04(A).

- g) Miscellaneous Requirements
 - (1) None.



2. Emissions Unit Group -Boilers: B001,B002,

EU ID	Operations, Property and/or Equipment Description
B001	143 mmBtu/hr natural gas fired boiler with low NOx burners
B002	143 mmBtu/hr natural gas fired boiler with low NOx burners

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)i., d)(7)-d)(9) and e)(6).

(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. b)(1)b., b)(2)c., d)(1), e)(1) and f)(1)a.

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.	40 CFR Part 60, Subpart Db (60.40b – 60.49b)	Nitrogen oxides (NOx) emissions shall not exceed 0.20 pounds per million British thermal units (lbs/mmBtu), as a 30-day, rolling average. [See b)(2)a. and b)(2)b.]
b.	OAC rule 3745-31-05(D)	NOx emissions shall not exceed 43.84 tons per year (tpy), based upon a rolling, 365-day period for emissions units B001 and B002, combined. [See b)(2)c.]
c.	OAC rule 3745-31-05(A)(3)	Filterable particulate matter emissions equal to or less than 10 microns in size (PM10) shall not exceed 0.27 lbs/hr and 1.18 tpy for each boiler. [See b)(2)d. and b)(2)h.]
d.	OAC rule 3745-31-05(A)(3)(a)	Carbon monoxide (CO) emissions shall not exceed 5.72 pounds per hour (lbs/hr) and 25.10 tpy for each boiler. [See b)(2)e.]
e.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) shall



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		not exceed 20% opacity, as a six-minute average, except as provided by rule.
f.	OAC rule 3745-17-10(B)(1)	See b)(2)i.
g.	OAC rule 3745-18-06	See b)(2)f.
h.	OAC rule 3745-31-05(A)(3)	See b)(2)g.
i.	OAC rule 3745-114-01 ORC 3704.03(F)	See d)(7)-d)(9) and e)(6).

(2) Additional Terms and Conditions

- a. The NO_x standard shall apply at all times including periods of startup, shutdown, or malfunction.
- b. Each continuous NO_x monitoring system (or predictive NO_x) system shall be certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 2 or Performance Specification 16 in the case of a predictive NO_x monitoring system. At least 45 days before commencing certification testing of the continuous NO_x monitoring system(s), the permittee shall develop and maintain a written quality assurance/quality control plan designed to ensure continuous valid and representative readings of NO_x emissions from the continuous monitor(s) (or predictive systems), in units of the applicable standard(s). The plan shall follow the requirements of 40 CFR Part 60, Appendix F (or Performance Specification 16 in the case of a predictive NO_x monitoring system). The quality assurance/quality control plan and a logbook dedicated to the continuous NO_x monitoring system (or predictive) must be kept on site and available for inspection during regular office hours.

The plan shall include the requirement to conduct quarterly cylinder gas audits or relative accuracy audits as required in 40 CFR Part 60; and to conduct relative accuracy test audits in units of the standard(s), in accordance with and at the frequencies required per 40 CFR Part 60 (or Performance Specification 16 quality control/quality assessment requirements in the case of a predictive NO_x monitoring system).

- c. This permit establishes the following federally enforceable emission limitation for purposes of avoiding Prevention of Significant Deterioration (PSD) and Title V applicability:

The emissions of NO_x from this emissions unit shall not exceed 43.84 tpy, based upon a rolling, 365-day period.

This emissions unit has been in operation for more than 12 months and, as such, the permittee has existing records to generate the rolling, 365-day summation of the emissions, upon issuance of this permit.



- d. The permittee has requested voluntary allowable emission limitations for filterable PM₁₀ of 0.27 lb/hr and 1.18 TPY. The short-term (lb/hour) and long-term (tons/year) emission limitations for filterable PM₁₀ are being established as practically and legally enforceable requirements representing the potential to emit based on the physical capacity of the emissions unit and the use of natural gas.
- e. Best available technology (BAT) control requirements for this emissions unit has been determined to be:
 - i. the use of low NO_x burners; and
 - ii. the firing of only natural gas.

BAT also includes compliance with the terms and conditions of this permit.

- f. This emissions unit is exempt from the requirements of OAC rule 3745-18-06 in accordance with OAC rule 3745-18-06(A).
- g. The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the uncontrolled PM₁₀, VOC and SO₂ emissions from this air contaminant source since the potentials to emit (PTE) for PM₁₀, VOC and SO₂ is each less than ten tons per year.

The PTE for VOC from this emissions unit of 3.44 tons/yr was calculated by multiplying the emission factor of 5.5 lbs of VOC per million standard cubic feet (mm scf) [USEPA AP-42 Table 1.4-2, revised 7/98], the maximum hourly heat input rate of 143 mmBtu/hr, the maximum operating schedule of 8760 hours per year, then dividing by the natural gas heating value of 1000 Btu/Cf and the conversion factor of 2000 pounds/ton.

The PTE for SO₂ from this emissions unit of 0.38 ton/yr was calculated by multiplying the emission factor of 0.6 lb of SO₂/mm scf [USEPA AP-42 emission factor, Table 1.4-2, Revised 7/98], the maximum hourly heat input rate of 143 mmBtu/hr, the maximum operating schedule of 8760 hours per year, then dividing by the natural gas heating value of 1000 Btu/Cf and the conversion factor of 2000 pounds/ton.

The PTE for filterable PM₁₀ for this emissions unit of 1.18 tons/yr was calculated by multiplying the USEPA, AP-42 emission factor, Table 1.4-2, of 1.9lbs of PM₁₀/mm scf [USEPA AP-42 emission factor, Table 1.4-2, Revised 7/98], the maximum hourly heat input rate of 143 mmBtu/hr, the maximum operating schedule of 8760 hours per year, then dividing by the natural gas heating value of 1000 Btu/Cf and the conversion factor of 2000 pounds/ton.

- h. All emissions of particulate matter are PM₁₀.
- i. The emission limitation established by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3)(a).



- c) Operational Restrictions
 - (1) The permittee shall burn only natural gas in this emissions unit.
- d) Monitoring and/or Recordkeeping Requirements
 - (1) The permittee shall maintain daily records of the following information:
 - a. the NO_x emission rate, in lbs/day, as quantified by the CEM/PEM; and
 - b. the rolling, 365-day summation of the NO_x emissions.
 - (2) The permittee shall submit to the Administrator for approval a plan that identifies the operating conditions to be monitored under 40 CFR 60.48b(g)(2) and the records to be maintained under 40 CFR 60.49b(j). This plan shall be submitted to the Administrator for approval within 360 days of the initial startup of the affected facility. If the plan is approved, the owner or operator shall maintain records of measured or predicted nitrogen oxide emission rates and the monitored operating conditions, including steam generating unit load, identified in the plan. The plan shall:
 - a. Identify the specific operating conditions to be monitored and the relationship between these operating conditions and NO_x emission rates (i.e., ng/J or lbs/MMBtu heat input). Steam generating unit operating conditions include, but are not limited to, the degree of staged combustion (i.e., the ratio of primary air to secondary and/or tertiary air) and the level of excess air (i.e., flue gas O₂ level);
 - b. Include the data and information that the owner or operator used to identify the relationship between NO_x emission rates and these operating conditions; and
 - c. Identify how these operating conditions, including steam generating unit load, will be monitored under 40 CFR 60.48b(g) on an hourly basis by the owner or operator during the period of operation of the affected facility; the quality assurance procedures or practices that will be employed to ensure that the data generated by monitoring these operating conditions will be representative and accurate; and the type and format of the records of these operating conditions, including steam generating unit load, that will be maintained by the owner or operator under 40 CFR 60.49b(j).
 - (3) The permittee shall maintain records of the following information for each steam generating unit operating day:
 - a. Calendar date;
 - b. The average hourly NO_x emission rates (expressed as NO₂) (ng/J or lb/MMBtu heat input) measured or predicted;
 - c. The 30-day average NO_x emission rates (ng/J or lb/MMBtu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days;



- d. Identification of the steam generating unit operating days when the calculated 30-day average NO_x emission rates are in excess of the NO_x emissions standards under § 60.44b, with the reasons for such excess emissions as well as a description of corrective action taken;
 - e. Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken;
 - f. Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data;
 - g. Identification of "F" factor used for calculations, method of determination, and type of fuel combusted;
 - h. Identification of the times when the pollutant concentration exceeded full span of the CEMS (or highest value in the PEMS database if PEMS are employed);
 - i. Description of any modifications to the CEMS (or PEMS) that could affect the ability of the CEMS (or PEMS) to comply with Performance Specification 2 and 3 (or Performance Specification 16 if PEMS are employed); and
 - j. Results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1 of this part (or daily sensor evaluations and quarterly Relative Accuracy Audits in the case of PEMS employment).
- (4) Prior to the installation of the continuous NO_x monitoring (or predictive) system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 2. The Ohio EPA, Central Office shall approve the proposed sampling site and certify that the continuous NO_x monitoring system meets the requirements of Performance Specification 2. Once received, the letter/document of certification shall be maintained on-site and shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.
- a. Each continuous monitoring (or predictive) system consists of all the equipment used to acquire and record data in units of all applicable standard(s), and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.
- (5) In lieu of installing a continuous emissions monitoring system (CEM) for NO_x, the permittee may elect to install a predictive emission monitoring system (PEMS) for the NO_x emissions. The PEMS must meet 40 CFR Part 60, Appendix B, Performance Specification 16.
- (6) After initial testing to assure the PEMS meets Performance Specification 16, ongoing quality assurance/quality control shall include a relative accuracy test audit (RATA) once every four (or less) calendar quarters. RATA requirements are in addition to any and all PEMS requirements. RATA testing protocol shall be submitted to the Director (the Ohio EPA, Central Office) for approval prior to installation of the PEMS.



- (7) 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.
- (8) The initial PTI application(s) [PTI 03-17156 issued 12/5/2006] for this/these emissions unit(s), B001, B002, J001, P007, P008, P009 and P010, were evaluated based on the actual materials and the design parameters of the emissions unit(s)' exhaust system, as specified by the permittee. The Toxic Air Contaminant Statute, ORC 3704.03(F), was applied to this/these emissions unit(s) 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 using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) 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 Toxic Emissions, Option A, as follows:
- a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) 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 American Conference of Governmental Industrial Hygienists (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 unit(s), i.e., 24 hours per day and 7 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 Maximum Acceptable Ground-Level Concentration (MAGLC):
$$\text{TLV}/10 \times 8/X \times 5/Y = 4 \text{ TLV}/XY = \text{MAGLC}$$
 - d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year):



- i. Toxic Contaminant: Hexane
TLV (mg/m³): 176.23
Maximum Hourly Emission Rate (lbs/hr): 0.70
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 2.77
MAGLC (ug/m³): 4,196

- ii. Toxic Contaminant: Formaldehyde

TLV (mg/m³): 368
Maximum Hourly Emission Rate (lbs/hr): 0.40
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 1.14
MAGLC (ug/m³): 6.47

- iii. Toxic Contaminant: Acetaldehyde
TLV (mg/m³): 33.2
Maximum Hourly Emission Rate (lbs/hr): 4.5
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 85.16
MAGLC (ug/m³): 790

The permittee, has demonstrated that emissions of hexane, formaldehyde, and acetaldehyde, from emissions unit(s) B001, B002, J001, P007, P008, P009, P010, and P012,, are each calculated to be less than eighty per cent of the maximum acceptable ground level concentration (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 Statute, ORC 3704.03(F).

- (9) 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 Threshold Limit Value (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 Statute 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 Statute, ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a



“modification”, the permittee shall apply for and obtain a final PTIO prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions

(10) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the Toxic Air Contaminant Statute, 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 Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the Toxic Air Contaminant Statute, 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 Statute, 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 Statute, 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.

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify:

- a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
 - i. all exceedances of the rolling, 365-day NO_x emission limitation.
- b. the probable cause of each deviation (excursion);
- c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
- d. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.



The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the appropriate District Office or local air agency).

- (2) The owner or operator of each affected facility subject to the NOX standard of 40 CFR 60.44b who seeks to demonstrate compliance with those standards through the monitoring of steam generating unit operating conditions under the provisions of 40 CFR 60.48b(g)(2) shall submit to the Administrator for approval a plan that identifies the operating conditions to be monitored under 40 CFR 60.48b(g)(2) and the records to be maintained under 40 CFR 60.49b(j). This plan shall be submitted to the Administrator for approval within 360 days of the initial startup of the affected facility. If the plan is approved, the owner or operator shall maintain records of predicted nitrogen oxide emission rates and the monitored operating conditions, including steam generating unit load, identified in the plan. The plan shall:
 - a. Identify the specific operating conditions to be monitored and the relationship between these operating conditions and NOX emission rates (i.e., ng/J or lbs/MMBtu heat input). Steam generating unit operating conditions include, but are not limited to, the degree of staged combustion (i.e., the ratio of primary air to secondary and/ or tertiary air) and the level of excess air (i.e., flue gas O2 level);
 - b. Include the data and information that the owner or operator used to identify the relationship between NOX emission rates and these operating conditions; and
 - c. Identify how these operating conditions, including steam generating unit load, will be monitored under 40 CFR 60.48b(g) on an hourly basis by the owner or operator during the period of operation of the affected facility; the quality assurance procedures or practices that will be employed to ensure that the data generated by monitoring these operating conditions will be representative and accurate; and the type and format of the records of these operating conditions, including steam generating unit load, that will be maintained by the owner or operator under 40 CFR 60.49b(j).

- (3) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous NO_x monitoring (or predictive) system:
 - a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency, documenting all instances of NO_x emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, OAC Chapters 3745-14 and 3745-23, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s).



- b. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall include the following:
- i. the facility name and address;
 - ii. the manufacturer and model number of the continuous NO_x and/or other associated monitors;
 - iii. a description of any change in the equipment that comprises the continuous emission monitoring (or NO_x predictive emissions monitoring) system (CEMS or PEMS), including any change to the hardware, changes to the software or look-up data that may affect CEMS or PEMS readings, and/or changes in the location of the CEMS sample probe;
 - iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;
 - v. the total NO_x emissions for the calendar quarter (tons);
 - vi. the total operating time (hours) of the emissions unit;
 - vii. the total operating time of the continuous NO_x monitoring or predictive system while the emissions unit was in operation;
 - viii. results and dates of quarterly cylinder gas audits;
 - ix. unless previously submitted, results and dates of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));
 - x. unless previously submitted, the results of any relative accuracy test audit showing the continuous NO_x monitor or predictive monitor was out-of-control and the compliant results following any corrective actions;
 - xi. the date, time, and duration of any/each malfunction** of the continuous NO_x monitoring or predictive system, emissions unit, and/or control equipment;
 - xii. the date, time, and duration of any downtime** of the continuous NO_x monitoring or predictive system and/or control equipment while the emissions unit was in operation; and
 - xiii. the reason (if known) and the corrective actions taken (if any) for each event in (b)(xi) and (xii).

Each report shall address the operations conducted and data obtained during the previous calendar quarter.

* where no excess emissions have occurred or the continuous monitoring or predictive system(s) has/have not been inoperative, repaired, or adjusted during the calendar quarter, such information shall be documented in the EER quarterly report



** each downtime and malfunction event shall be reported regardless if there is an exceedance of any applicable limit

- (4) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
- (5) The permittee shall identify in the annual permit evaluation report the following information during the 12-month reporting period for this/these emissions unit(s):
 - a. any deviations from 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 to remedy the deviations.

If no deviations occurred during the reporting period, the permittee shall identify in the permit evaluation report that no deviations occurred during the reporting period.

- (6) The permittee shall include any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the Toxic Air Contaminant Statute, ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration, in the annual Permit Evaluation Report (PER). If no changes to the emissions, emissions unit(s), or the exhaust stack have been made, then the report shall include a statement to this effect.

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. Emissions Limitations:

NO_x emissions shall not exceed 0.20 lbNO_x/mmBtu; 43.84 tons per year combined for B001 and B002, based upon a rolling 365-day period.

Applicable Compliance Method:

Compliance with the allowable lbNO_x/mmBtu emission limitation was demonstrated by emission testing conducted on 01/13/2009 and 01/16/2009 in accordance with the performance test required in (f)(1).

Additional testing requirements shall be conducted in accordance with applicable rules, policies, etc. (i.e. Engineering Guide #16, OAC rule 3745-15-04, etc.)

Compliance with the annual limitation shall be based upon record keeping requirement in d)(1).



- b. Emissions Limitations:
5.72 lbs CO/hr; 25.10 TPY CO for each boiler

Applicable Compliance Method:

Compliance with the hourly allowable CO emission limitation was demonstrated by emission testing conducted on 01/13/2009 and 01/16/2009 in accordance with Methods 1 - 4 and 10 of 40 CFR Part 60, Appendix A.

Additional testing requirements shall be conducted in accordance with applicable rules, policies, etc. (i.e. Engineering Guide #16, OAC rule 3745-15-04, etc.)

The annual emission limitation was developed by multiplying the hourly emission limitation by the maximum operating schedule of 8760 hours/year, and then by 0.0005 ton/lb. Therefore, provided compliance is shown with the hourly limitation, compliance with the annual limitation shall also be demonstrated.

- c. Emissions Limitations:
0.27 lbs filterable PM10/hr; 1.18 TPY filterable PM10 for each boiler

Applicable Compliance Method:

The hourly allowable PM10 emission limitation was developed by multiplying the emission factor of 1.9 lbs of filterable PM10/mm scf (USEPA, AP-42 emission factor, Table 1.4-2, revised 7/98) by the maximum hourly heat input rate of 143 mmBtu/hr, and then dividing by the heating value of 1000 mmBtu/mm scf.

If required, compliance with the PM10 limitation shall be determined in accordance with the test methods and procedures specified in 40 CFR Part 51, Appendix M, Methods 201/201 A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office (NWDO).

The annual emission limitation was developed by multiplying the hourly emission limitation by the maximum operating schedule of 8760 hours/year, and then by 0.0005 ton/lb. Therefore, provided compliance is shown with the hourly limitation, compliance with the annual limitation shall be demonstrated.

- d. Emissions Limitation:
Visible PE from the stack serving this emissions unit shall not exceed 20% opacity, as a six-minute average.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with OAC rule 3745-17-03(B)(1).

- g) Miscellaneous Requirements

- (1) None.