



Environmental Protection Agency

John R. Kasich, Governor  
Mary Taylor, Lt. Governor  
Scott J. Nally, Director

8/28/2012

Certified Mail

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

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

Facility ID: 0369000051  
Permit Number: P0110844  
Permit Type: Administrative Modification  
County: Putnam

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

Dear Permit Holder:

Enclosed please find a final 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. Please complete a survey at [www.epa.ohio.gov/dapc/permitsurvey.aspx](http://www.epa.ohio.gov/dapc/permitsurvey.aspx) and give us feedback on your permitting experience. We value your opinion.

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  
309 South Fourth Street, Room 222  
Columbus, OH 43215

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. This permit can be accessed electronically on the DAPCWeb page, [www.epa.ohio.gov/dapc](http://www.epa.ohio.gov/dapc), by clicking the "Issued Air Pollution Control Permits" link.

Sincerely,

Michael W. Ahern, Manager  
Permit Issuance and Data Management Section, DAPC

Cc: Ohio EPA-NWDO





**FINAL**

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

Facility ID:	0369000051
Permit Number:	P0110844
Permit Type:	Administrative Modification
Issued:	8/28/2012
Effective:	8/28/2012
Expiration:	6/22/2014





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

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## Authorization

Facility ID: 0369000051  
 Application Number(s): M0001884  
 Permit Number: P0110844  
 Permit Description: Agency-initiated administrative modification for emissions units P008 and P009 to reflect combined emission limitations established in PTIO P0109426 issued 6/19/2012 for emissions unit P007.  
 Permit Type: Administrative Modification  
 Permit Fee: \$0.00  
 Issue Date: 8/28/2012  
 Effective Date: 8/28/2012  
 Expiration Date: 6/22/2014  
 Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

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.

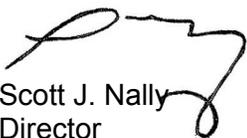
Ohio EPA District Office or local air agency responsible for processing and administering your permit:

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

  
 Scott J. Nally  
 Director



## Authorization (continued)

Permit Number: P0110844  
Permit Description: Agency-initiated administrative modification for emissions units P008 and P009 to reflect combined emission limitations established in PTIO P0109426 issued 6/19/2012 for emissions unit P007.

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

Group Name: **dryers**

<b>Emissions Unit ID:</b>	<b>P008</b>
Company Equipment ID:	dryer no. 1
Superseded Permit Number:	P0107812
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P009</b>
Company Equipment ID:	dryer no. 2
Superseded Permit Number:	P0107812
General Permit Category and Type:	Not Applicable

## **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. Unless otherwise specified, facilities subject to one or more synthetic minor restrictions must use Ohio EPA's "Air Services" to submit annual emissions associated with this permit requirement. 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 will no longer be applicable after issuance of the Title V permit: Section B, Term 1.b) and Section C, for each emissions unit, Term a)(2).

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

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

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

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

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

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

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

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

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

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

You should notify Ohio EPA of any emissions unit that is permanently shut down by submitting<sup>1</sup> 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 emissions 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.

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<sup>1</sup>Permittees that use Ohio EPA's "Air Services" can mark the affected emissions unit(s) as "permanently shutdown" in the facility profile along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update will constitute notifying of the permanent shutdown of the affected emissions unit(s).

**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.

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

**Final Permit-to-Install and Operate**

POET Biorefining - Leipsic

**Permit Number:** P0110844

**Facility ID:** 0369000051

**Effective Date:** 8/28/2012

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.

## **C. Emissions Unit Terms and Conditions**

**1. Emissions Unit Group -dryers: P008,P009,**

EU ID	Operations, Property and/or Equipment Description
P008	dryer no. 1 (60 mmBtu/hr natural gas fired) controlled with a regenerative thermal oxidizer
P009	dryer no. 2 (60 mmBtu/hr natural gas fired) controlled with a regenerative thermal oxidizer

- 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)f, d)(4).
- (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
- a. None.
- b) Applicable Emissions Limitations and/or Control Requirements
- (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(F) <b>(Administrative modification of PTIO P0107812 issued 6/27/2011)</b>	Carbon monoxide (CO) emissions from P007, P008 and P009 combined, shall not exceed 12.02lbs/hr and 52.66 TPY [see b)(2)a and c)(1)].  Particulate matter equal to or less than 10 microns in size (PM10), from emissions units P007, P008 and P009 combined, shall not exceed 10.0 lbs/hr and 43.8 TPY [see b)(2)a., b)(2)b. and C)(1)]  Volatile organic compound (VOC) emissions from P007, P008 and P009 combined, shall not exceed 9.0lbs/hr and 46.12 TPY. [see b)(2)a and c)(1)]  Visible particulate emissions (PE) from the stack(s) serving this emissions unit shall not exceed 5% opacity, as a six-

**Final Permit-to-Install and Operate**

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**Permit Number:** P0110844

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	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		minute average during normal and RTO downtime operations.
b.	ORC rule 3704.03(T)	Nitrogen oxides (NOx) emissions from emissions units P007, P008 and P009 combined shall not exceed 11.0 pounds per hour (lbs/hr).  See b)(2)c.
c.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	See b)(2)d.
d.	OAC rule 3745-17-07(A)	See b)(2)e.
e.	OAC rule 3745-17-11(B)	See b)(2)e.
f.	OAC rule 3745-114-01 ORC 3704.03(F)	See d)(4).

(2) Additional Terms and Conditions

- a. This permit establishes the following legally and practically enforceable emission limitations for the purpose of limiting the potential to emit (PTE) for CO, PM<sub>10</sub> and VOC. The following legally and practically enforceable emission limitations are voluntary restrictions established under OAC rule 3745-31-05(F) and are based on the operational restrictions contained in c)(1) which require control equipment and process control:
  - i. 12.02lbs/hr and 52.66tpy CO (for P007, P008 and P009 combined);
  - ii. 10.0 lbs/hr PM<sub>10</sub> and 43.8 tpy PM<sub>10</sub>(for P007, P008 and P009 combined);
  - iii. visible PE shall not exceed 5% opacity, as a six-minute average (during normal operations and downtime of the RTO);
  - iv. 9.0lbs/hr and 46.12tpy VOC (for P007, P008 and P009 combined).
- b. All emissions of particulate matter are PM<sub>10</sub>.
- c. The Best Available Technology (BAT) requirements under ORC 3704.03(T) have been determined to be a NOx emission limitation not to exceed 11.0 lbs/hr (for P007, P008 and P009 combined) and compliance with the lb/hr limitations established under OAC rule 3745-31-05(F).

The emission rates above represent the potential to emit (defined as the maximum capacity to emit an air pollutant under the physical and operational design). Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure compliance with these emission limitations.

- d. The emissions of sulfur dioxide (SO<sub>2</sub>) from this emissions unit have been determined to be negligible and therefore emission limitations under OAC rule

3745-31-05(A)(3), as effective 11-30-01, have not been established in this permit.

- e. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(F).

c) Operational Restrictions

(1) The following operational restrictions have been included in this permit for the purpose of establishing legally and practically enforceable requirements which limit PTE: [See b)(2)a.):

- a. the use of a regenerative thermal oxidizer (RTO) following a wet scrubber meeting a minimum control efficiency of 90% for CO and particulate matter\* and 98% for VOC emissions; and
- b. firing only natural gas in the RTO.

\*The control of particulate matter includes a multiclone/cyclone for removal of particulate matter (as dried product) prior to entering the RTO. The control system shall result in a PM10 emission rate not to exceed 10.0 lbs/hr (for P007, P008, P009 and P010 combined) from the RTO.

- (2) The permittee shall burn only natural gas in this emissions unit.
- (3) The permittee shall shut down this emissions unit when the RTO experiences an unscheduled shutdown.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall properly install, operate, and maintain equipment to continuously monitor and record the combustion temperature within the thermal oxidizer during operation of this emissions unit. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the combustion temperature within the thermal oxidizer on a continuous basis.

Whenever the monitored value for the combustion temperature deviates from the value specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable value specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period

of time (in minutes) during which there was a deviation, the combustion temperature within the thermal oxidizer immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The average combustion temperature within the thermal incinerator, for any 3-hour block of time when the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance.

This value is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency.

- (2) 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.
- (3) The permittee shall maintain a record of all instances when this emissions unit was in operation when the RTO was shutdown.
- (4) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the proposed combined increase for each toxic air contaminant (as defined in OAC rule 3745-114-01) from emission units J001, P007, P008, P009, and P010 will be less than 1.0 ton per year. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified PTIO prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTIO.

e) Reporting Requirements

- (1) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director 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.
- (2) The permittee shall submit deviation reports that identify all instances when emissions units P008 and/or P009 were in operation [see b)(2)d. and c)(3)] when the RTO was shut down. These reports shall be submitted within 30 days after the deviation occurs.
- (3) The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment (thermal incinerator) during the operation of this emissions unit:
  - a. all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit was in operation, was more than

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50 degrees Fahrenheit below the average temperature during the most recent performance test that demonstrated the emissions unit was in compliance.

- b. an identification of each incident of deviation described in (a) where a prompt investigation was not conducted;
- c. an identification of each incident of deviation described in (a) where prompt corrective action, that would bring the combustion temperature into compliance with the acceptable range, was determined to be necessary and was not taken; and
- d. an identification of each incident of deviation described in (a) where proper records were not maintained for the investigation and/or the corrective action.

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).

- (4) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

f) Testing Requirements

- (1) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

- a. The emission testing shall be conducted within 180 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than one year after issuance of this permit.

\*It should be noted that this is an administrative modification to the original permit; therefore, the company has fulfilled these requirements through testing that was completed on 12/14/11.

- b. The emission testing shall be conducted to demonstrate compliance with the NO<sub>x</sub>, CO, VOC, and PM<sub>10</sub> mass emission limitations from the regenerative thermal oxidizer controlling this emissions unit. Emission testing shall also be conducted to demonstrate compliance with the control efficiency limitation for VOCs from the scrubber controlling this emissions unit, and for the control efficiency limitation for VOCs from the regenerative thermal oxidizer controlling this emissions unit. Emission testing shall also be conducted to verify the expected emissions for single and combined HAPs.

- c. The following test methods shall be employed to demonstrate compliance with the above emission limitations:

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- i. for PM10, Methods 201/201A and 202 of 40 CFR Part 51, Appendix M;
- ii. for NOx, Methods 1-4 and 7 of 40 CFR Part 60, Appendix A;
- iii. for CO, Methods 1-4 and 10 of 40 CFR Part 60, Appendix A; and
- iv. for total VOC, Methods 1-4 and 18, 25 or 25A of 40 CFR Part 60, Appendix A. Appropriate methods shall be used in conjunction with the test methods and procedures specified in Methods 18, 25, or 25A of 40 CFR Part 60, Appendix A for determining total VOC mass emissions; and
- v. for HAPs (acetaldehyde, hexane, formaldehyde, acrolein, toluene, xylenes), Methods 18 or 320 from 40 CFR Part 60, Appendix A.

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA, NWDO. The test method(s) which must be employed to demonstrate compliance with the control efficiencies are specified below.

- d. The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in Methods 18, 25, or 25A of 40 CFR Part 60, Appendix A for VOC emissions .
- e. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases."
- f. The test(s) shall be conducted while emissions units P007, P008 and P009 are operating at their maximum capacities, unless otherwise specified or approved by the Ohio EPA, NWDO.
- g. During emission testing, the permittee shall also record the following information:
  - i. the average combustion temperature within the thermal incinerator, in degrees Fahrenheit.
- h. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, NWDO. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, NWDO's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, NWDO shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report of the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the

Ohio EPA, NWDO within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, NWDO.

Future testing requirements shall be conducted in accordance with applicable rules, policies, etc. (i.e. Engineering Guide #16, OAC rule 3745-15-04, etc.) Testing time frames may be amended or waived for cause upon prior request of and written approval of, the Ohio EPA Northwest District Office.

(2) 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 Limitations:

9.0lb VOC/hr, 46.12tpy VOC (for emissions units P007, P008 and P009 combined)

11.0 lbsNOx/hr (for emissions units P007, P008 and P009 combined)

12.02lbs CO/hr, 52.66tpy CO (for emissions units P007, P008 and P009 combined)

10.0 lbs PM10/hr, 43.8 tpy PM10 (for emissions units P007, P008 and P009 combined)

Applicable Compliance Method:

Compliance with the hourly allowable emission limitations above shall be demonstrated based on the results of emission testing conducted in accordance with the following:

- i. for PM10, Methods 201/201A and 202 of 40 CFR Part 51, Appendix M;
- ii. for NOx, Methods 1-4 and 7 of 40 CFR Part 60, Appendix A;
- iii. for CO, Methods 1-4 and 10 of 40 CFR Part 60, Appendix A; and
- iv. for total VOC, Methods 1-4 and 18, 25 or 25A of 40 CFR Part 60, Appendix A.

The annual emission limitations were developed by multiplying the respective hourly emission limitations by the maximum operating schedule of 8760 hours/year, and then dividing by 2000 lbs/ton. Therefore, if compliance is shown with the hourly limitations, compliance with the annual limitations shall also be demonstrated.

b. Emission Limitation:

Visible PE from the RTO stack shall not exceed 5% opacity, as a six-minute average (during normal operations and RTO downtime).

Appliance Compliance Method:

If required compliance shall be determined according to test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

c. Emission Limitation:

The regenerative thermal oxidizer shall meet a minimum control efficiency of 98% for VOC emissions, and a minimum control efficiency of 90% for CO and PM10\*.

\*The control of particulate matter includes a multiclone/cyclone for removal of particulate matter (as dried product) prior to entering the RTO. The control system shall result in a PM10 emission rate not to exceed 10.0 lbs/hr from the RTO.

Applicable Compliance Method:

Compliance with the control efficiency requirements above shall be demonstrated based on the results of emission testing conducted in accordance with the methods outlined in Section f)(1) of this permit. Compliance with the CO destruction efficiency shall be assumed as long as compliance with the hourly CO mass emission limitation is maintained. [Due to the creation of CO in the RTO, it is not possible to perform testing to demonstrate compliance directly associated with the destruction of CO entering the RTO.]

g) Miscellaneous Requirements

(1) None.