



State of Ohio Environmental Protection Agency

STREET ADDRESS:

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P.O. Box 1049  
Columbus, OH 43216-1049

3/4/2010

Matthew Griscom  
RHODIA INC  
4775 Paddock Road  
Cincinnati, OH 45229

RE: DRAFT AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE  
Facility ID: 1431070001  
Permit Number: P0105896  
Permit Type: OAC Chapter 3745-31 Modification  
County: Hamilton

Certified Mail

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR
No	CEMS
No	MACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED

Dear Permit Holder:

A draft of the Ohio Administrative Code (OAC) Chapter 3745-31 Air Pollution Permit-to-Install and Operate for the referenced facility has been issued for the emissions unit(s) listed in the Authorization section of the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit comments on the permit. A public notice will appear in the Ohio EPA Weekly Review and the local newspaper, The Cincinnati Enquirer. A copy of the public notice and the draft permit are enclosed. This permit has been posted to the Division of Air Pollution Control Web page <http://www.epa.ohio.gov/dapc> in Microsoft Word and Adobe Acrobat format. Comments will be accepted as a marked-up copy of the draft permit or in narrative format. Any comments must be sent to the following:

Andrew Hall  
Permit Review/Development Section  
Ohio EPA, DAPC  
122 South Front Street  
Columbus, Ohio 43215

and Hamilton County Dept. of Environmental Services  
250 William Howard Taft Pkwy.  
Cincinnati, OH 45219-2660

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published in the newspaper. You will be notified in writing if a public hearing is scheduled. A decision on issuing a final permit-to-install and operate will be made after consideration of comments received and oral testimony if a public hearing is conducted. Any permit fee that will be due upon issuance of a final Permit-to-Install and Operate is indicated in the Authorization section. Please do not submit any payment now. If you have any questions, please contact Hamilton County Dept. of Environmental Services at (513)946-7777.

Sincerely,

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

Cc: U.S. EPA Region 5 *Via E-Mail Notification*  
HCDOES; Indiana; Kentucky

Ted Strickland, Governor  
Lee Fisher, Lieutenant Governor  
Chris Korleski, Director



PUBLIC NOTICE  
Issuance of Draft Air Pollution Permit-To-Install and Operate  
RHODIA INC

Issue Date: 3/4/2010

Permit Number: P0105896

Permit Type: OAC Chapter 3745-31 Modification

Permit Description: Chapter 31 modification to permit # P0104796 for emissions unit P019; modification to allow for increase in production rate and corresponding increases in allowable emissions rates for certain regulated pollutants, also noting a decrease in natural gas fired burner heat input.

Facility ID: 1431070001

Facility Location: RHODIA INC  
4775 PADDOCK RD.,  
CINCINNATI, OH 45229

Facility Description: All Other Basic Inorganic Chemical Manufacturing

Chris Korleski, Director of the Ohio Environmental Protection Agency, 50 West Town Street, Columbus Ohio has issued a draft action of an air pollution control, federally enforceable permit-to-install and operate (PTIO) for the facility at the location identified above on the date indicated. Comments concerning this draft action, or a request for a public meeting, must be sent in writing no later than thirty (30) days from the date this notice is published. All comments, questions, requests for permit applications or other pertinent documentation, and correspondence concerning this action must be directed to Mike Kramer at Hamilton County Dept. of Environmental Services, 250 William Howard Taft Pkwy. or (513)946-7777. The permit can be downloaded from the Web page: [www.epa.ohio.gov/dapc](http://www.epa.ohio.gov/dapc)





## Permit Strategy Write-Up

1. Check all that apply:

Synthetic Minor Determination

Netting Determination

2. Source Description:

Rhodia is a producer of alumina products used in the manufacture of catalysts for emission control in automotive catalytic convertors and other products. The emissions unit P019 is a rotary calciner used to process the alumina product. As a result of process optimization in other emissions units located at the facility, the throughput of emissions unit P019 can be increased. This will result in increased emissions due to the greater overall throughput of the facility. This Chapter 31 modification request would increase the allowable hourly emission rates of several pollutants, though no increase in annual emissions are requested except for emissions of SO<sub>2</sub>.

3. Facility Emissions and Attainment Status:

Rhodia is currently a synthetic minor facility for particulate emissions and nitrogen oxides (NO<sub>x</sub>) emissions. It is located in Hamilton County, which is compliant with all of the criteria pollutants except for particulate matter 10 microns and less (PM<sub>2.5</sub>) and ozone.

4. Source Emissions:

	Current Allowable emission rates		Proposed Allowables	
	lb(s)/hr*	TPY	lb(s)/hr*	TPY
PE/ PM10 (feed hopper)	0.13	0.57	0.13	0.57
PE/ PM10 (calciner)	0.60	2.63	0.60	2.63
PE/ PM10 (burner)	0.020 lb./MMBtu	1.0	0.020 lb./MMBtu	1.0
SO <sub>2</sub> (calciner)	2.31	0.55	7.2**	20.62**
CO (calciner)	11.13	6.63	12.72	6.63
CO (burner)	0.084 lb/MMBtu	4.19	0.084 lb/MMBtu	3.64
NO <sub>x</sub> (calciner and burner)	54.0	29.3	61.0**	28.64
OC (calciner)	1.5	0.89	1.7	0.89
OC (burner)	0.0055 lb/MMBtu	0.27	0.0055 lb/MMBtu	0.24

\* Unless other short term limit is specified

\*\* Due to Mike Hopkins' December 10, 2009, titled "BAT Requirements for Permit Applications Filed On or After August 3, 2009, these values were established for internal purposes only. They are not listed in the draft permit.



State of Ohio Environmental Protection Agency  
 Division of Air Pollution Control

**Permit Strategy Write-Up**  
**Permit Number:** P0105896  
**Facility ID:** 1431070001

5. Conclusion:

The proposed modification (process optimization of some of the current emissions units at the facility) will result in increases of annual SO2 emissions due to higher sulfur content in some proposed new products. Other annual emission rates are the same or slightly less than previous, primarily due to the smaller natural gas burner being employed. Hourly rates from calciner increase proportionate to the increased throughput, except for PE/PM10 which remains the same (calculated based on grain loading to the product recovery baghouse).

Approval of the proposed PTIO is recommended

Permit Fee: P019 = \$200

6. Please provide additional notes or comments as necessary:

Note that this permitting action has all the concepts contained within Mike Hopkins' February 19, 2010, memo titled "Permit Processing After U.S. District Court < 10 tons/yr Exemption Decision." This is in this particular case, one has both greater than and less than 10 tons per year pollutants. So this permitting action also includes compliance with Mike Hopkins' December 10, 2009, titled "BAT Requirements for Permit Applications Filed On or After August 3, 2009."

7. Total Permit Allowable Emissions Summary (for informational purposes only):

<u>Pollutant</u>	<u>Tons Per Year</u>
PE/PM10	4.2
SO2	20.62**
NOx	28.64
CO	10.27
OC	1.13

Gregory Howard 2/8/2010



**State of Ohio Environmental Protection Agency  
Division of Air Pollution Control**

**DRAFT**

**Air Pollution Permit-to-Install and Operate  
for  
RHODIA INC**

Facility ID: 1431070001  
Permit Number: P0105896  
Permit Type: OAC Chapter 3745-31 Modification  
Issued: 3/4/2010  
Effective: To be entered upon final issuance  
Expiration: To be entered upon final issuance





**Air Pollution Permit-to-Install and Operate**  
for  
RHODIA INC

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State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Draft Permit-to-Install and Operate**

**Permit Number:** P0105896

**Facility ID:** 1431070001

**Effective Date:** To be entered upon final issuance

## Authorization

Facility ID: 1431070001

Application Number(s): A0038689

Permit Number: P0105896

Permit Description: Chapter 31 modification to permit # P0104796 for emissions unit P019; modification to allow for increase in production rate and corresponding increases in allowable emissions rates for certain regulated pollutants, also noting a decrease in natural gas fired burner heat input.

Permit Type: OAC Chapter 3745-31 Modification

Permit Fee: \$500.00 *DO NOT send payment at this time - subject to change before final issuance*

Issue Date: 3/4/2010

Effective Date: To be entered upon final issuance

Expiration Date: To be entered upon final issuance

Permit Evaluation Report (PER) Annual Date: To be entered upon final issuance

This document constitutes issuance to:

RHODIA INC  
4775 PADDOCK RD.  
CINCINNATI, OH 45229

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:

Hamilton County Dept. of Environmental Services  
250 William Howard Taft Pkwy.  
Cincinnati, OH 45219-2660  
(513)946-7777

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

Chris Korleski  
Director



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Draft Permit-to-Install and Operate**

**Permit Number:** P0105896

**Facility ID:** 1431070001

**Effective Date:** To be entered upon final issuance

## Authorization (continued)

Permit Number: P0105896

Permit Description: Chapter 31 modification to permit # P0104796 for emissions unit P019; modification to allow for increase in production rate and corresponding increases in allowable emissions rates for certain regulated pollutants, also noting a decrease in natural gas fired burner heat input.

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

<b>Emissions Unit ID:</b>	<b>P019</b>
Company Equipment ID:	Rotary Calciner
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Draft Permit-to-Install and Operate**

**Permit Number:** P0105896

**Facility ID:** 1431070001

**Effective Date:** To be entered upon final issuance

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



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

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

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

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

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

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

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

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

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

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

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

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

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

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



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

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

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

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

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

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

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

If you are required to obtain a Title V permit under OAC Chapter 3745-77 in the future, the permit-to-operate portion of this permit will be superseded by the issued Title V permit. From the effective date of the Title V permit forward, this PTIO will effectively become a PTI (permit-to-install) in accordance with OAC rule 3745-31-02(B). The following terms and conditions 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 Hamilton County Dept. of Environmental Services 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.



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Draft Permit-to-Install and Operate**

**Permit Number:** P0105896

**Facility ID:** 1431070001

**Effective Date:** To be entered upon final issuance

**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.



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Draft Permit-to-Install and Operate**

**Permit Number:** P0105896

**Facility ID:** 1431070001

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



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Draft Permit-to-Install and Operate**

**Permit Number:** P0105896

**Facility ID:** 1431070001

**Effective Date:** To be entered upon final issuance

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.



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Draft Permit-to-Install and Operate**

**Permit Number:** P0105896

**Facility ID:** 1431070001

**Effective Date:** To be entered upon final issuance

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



**1. P019, Rotary Calciner**

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

Rotary Calciner

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., c)(1), c)(2), d)(1), e)(1) and e)(2).

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	<p>Particulate emissions (PE) and Particulate matter 10 microns and less (PM10) from the calciner feed hopper shall not exceed 0.13 pound per hour and 0.57 ton per year. See b)(2)e.</p> <p>PE and PM10 from the indirect rotary calciner shall not exceed 0.60 pound per hour and 2.63 tons per year. See b)(2)e.</p> <p>PE/PM10 from the combustion of natural gas in this emissions unit shall not exceed 0.86 ton per year. See b)(2)e.</p> <p>Carbon monoxide (CO) emissions from the indirect rotary calciner shall not exceed 12.72 pounds per hour and 6.63 ton per year. See b)(2)e.</p> <p>Carbon monoxide (CO) emissions from the natural gas burner shall not exceed</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>0.084 pound per million BTU and 3.64 tons per year. See b)(2)e.</p> <p>Organic compound (OC) emissions from the indirect rotary calciner shall not exceed 1.7 pounds per hour and 0.89 ton per year. See b)(2)e.</p> <p>Organic compound (OC) emissions from the natural gas burner shall not exceed 0.0055 pound per million BTU and 0.24 ton per year. See b)(2)e.</p> <p>See b)(2)c., b)(2)d., and c)(1) through c)(4).</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule OAC rules 3745-17-10(B)(1) and 3745-31-05(D).</p>
b.	OAC rule 3745-31-05(A)(3)(a)(ii) as effective 12/01/06	See b)(2)e.
c.	OAC rule 3745-31-05(E) as effective 12/01/06	See b)(2)f.
d.	OAC rule 3745-31-05(D) Synthetic Minor to avoid Non-Attainment New Source Review	<p>Nitrogen oxide (NOx) emissions from the indirect rotary calciner and combustion of natural gas in this emissions unit shall not exceed 28.64 tons per year, based on a rolling 12-month summation.</p> <p>See c)(1) and c)(2).</p>
e.	ORC 3704.03(T)	3 lbs of SO <sub>2</sub> per 1000 lbs of sulfur containing product employed.
f.	OAC rule 3745-17-07(A)(1)	<p>The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).</p> <p>Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then this emissions unit will be subject to the opacity limitation listed in OAC rule 3745-17-07(A)(1).</p>
g.	OAC rule 3745-17-11(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then this emissions unit shall not exceed 4.63 pounds/hour of PE.
h.	OAC rule 3745-17-10(B)(1)	PE from the combustion of natural gas in this emissions unit shall not exceed 0.020 lb/ million BTU heat input.
i.	OAC rule 3745-18-06(E)(2)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to ORC 3704.03(T).

(2) Additional Terms and Conditions

- a. Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the mass emission limitations, a visible emission limitation, production rate limitations, and the use of a fabric filter.
- b. The hourly emission limitations outlined in term b)(1) are based upon the emissions unit's potential to emit. Therefore, no hourly records are required to demonstrate compliance with these limits.
- c. Visible emissions from any stack shall not exceed 10 percent opacity, as a six-minute average.
- d. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS 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 OAC rule 3745-31-05, then these emission limits/control measures no longer apply.
- e. 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.
  - i. The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3)(b) do not apply to the following criteria pollutants from this air contaminant source since the uncontrolled potential to emit is less than ten tons per year:
    - (a) Particulate emissions (PE) and Particulate matter 10 microns and less (PM10) from the calciner feed hopper shall not exceed 0.13 pound per hour and 0.57 ton per year.





- (3) The maximum annual production rate of acetate-containing metal oxides for this emissions unit shall not exceed 1250 tons.
  - (4) Emissions shall be vented to a fabric filter at all times when the emissions unit is in operation. The pressure drop across the feed hopper exhaust fabric filter and the calciner exhaust fabric filter shall be maintained within the ranges established during the most recent emissions test where compliance was demonstrated or in accordance with the manufacturer's recommendations, at all times while the emissions unit is in operation.
- d) Monitoring and/or Recordkeeping Requirements
- (1) The permittee shall maintain the following records each month:
    - a. The high NOx grade metal oxides production rate for each month.
    - b. The total metal oxides production rate for each month.
    - c. The acetate-containing metal oxides production rate for each month.
    - d. The monthly NOx emissions, in tons.
    - e. The rolling, 12-month summation of the high NOx grade metal oxide production rate.
    - f. The rolling, 12-month summation of the total metal oxide production rate.
    - g. The rolling, 12-month summation of the NOx emissions, in tons.
  - (2) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the fabric filters when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the fabric filters on a once per shift basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

Whenever the monitored value for the pressure drop deviates from the limit or range established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. 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 range specified in this permit, 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. a description of the corrective action;
- b. the date corrective action was completed;
- c. the date and time the deviation ended;
- d. the total period of time (in minutes) during which there was a deviation;
- e. the pressure drop readings immediately after the corrective action was implemented; and
- f. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

This range or limit on the pressure drop across the baghouse 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. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports to the Hamilton County Department of Environmental Services which identify all exceedances of the rolling 12-month NOx emissions limitations listed in b)(1). If no deviations occurred during the reporting period, the permittee shall state so in the report. 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 permittee shall submit quarterly deviation (excursion) reports to the Hamilton County Department of Environmental Services which identify all exceedances of the rolling 12-month production limitations listed in c)(1) and c)(2). If no deviations occurred during the reporting period, the permittee shall state so in the report. 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).

- (3) 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.

f) Testing Requirements

- (1) Compliance with the emission limitations in b)(1) and b(2) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Particulate emissions (PE) and Particulate matter 10 microns and less (PM10) from the calciner feed hopper shall not exceed 0.13 pound per hour and 0.57 ton per year.

Applicable Compliance Method:

The hourly and annual particulate emission rate from the calciner feed hopper is based on the emissions unit's potential to emit. The hourly potential to emit was calculated by:  $(0.0188 \text{ grain/ft}^3) \times (800 \text{ ft}^3/\text{min}) \times (60 \text{ min/hr}) \times (1 \text{ lb}/7000 \text{ grains})$ . The annual potential to emit was calculated by:  $(0.13 \text{ lb/hr}) \times (8760 \text{ hrs/year}) \times (1 \text{ ton}/2000 \text{ lbs})$ .

b. Emission Limitation:

PE and PM10 from the indirect rotary calciner shall not exceed 0.60 pound per hour and 2.63 tons per year.

Applicable Compliance Method:

The hourly and annual particulate emission rate from the indirect rotary calciner is based on the emissions unit's potential to emit. The hourly potential to emit was calculated by:  $(0.02 \text{ grain/ft}^3) \times (3500 \text{ ft}^3/\text{min}) \times (60 \text{ min/hr}) \times (1 \text{ lb}/7000 \text{ grains})$ . The annual potential to emit was calculated by:  $(0.60 \text{ lb/hr}) \times (8760 \text{ hrs/year}) \times (1 \text{ ton}/2000 \text{ lbs})$ .

c. Emission Limitations:

0.020 lb/MMBTU of PE from the combustion of natural gas in the indirect rotary calciner

PE/PM10 from the combustion of natural gas in this emissions unit shall not exceed 0.86 ton per year.



Applicable Compliance Method:

If required, emissions testing shall be performed to determine compliance with the particulate emission limitation. The testing shall be conducted using the following method: Method 5 of 40 CFR, Part 60, Appendix A.

The annual PE/PM10 emission rate from the natural gas burner was calculated by: (0.02 lb of PE/MMBTU) x (9.9 MMBTU/hr) x (8760 hr/ year).

d. Emission Limitations:

Nitrogen oxide (NOx) emissions from the indirect rotary calciner and natural gas burner shall not exceed 61.0 pounds per hour.

Nitrogen oxide (NOx) emissions from the indirect rotary calciner and combustion of natural gas in this emissions unit shall not exceed 28.64 tons per year, based on a rolling 12-month summation.

Applicable Compliance Method:

The hourly nitrogen oxide emission rate from the indirect rotary calciner was calculated by: (0.025 lb of NOx/lb of high NOx product) x (2400 lbs of high NOx product/hr) added to (0.1 lb of NOx/MMBTU) x (9.9 MMBTU/hr.). The annual nitrogen oxide emission rate from the indirect rotary calciner was calculated by:  $\{[(1,750,000 \text{ lbs of high NOx product/yr}) \times (0.025 \text{ lb of NOx/lb high NOx product}) \times (1 \text{ ton}/2000 \text{ lbs})] + [(12,000,000 \text{ lbs of low NOx product/yr}) \times (0.0004 \text{ lb of NOx/lb of low NOx product}) \times (1/2000 \text{ lbs})]\}$  added to (0.1 lb/MMBTU) x (9.9 MMBTU/hr) x (8760 hrs/yr) x 1 ton/2000 lbs.). Compliance with the annual rolling 12-month summation of NOx emissions will be determined by the record keeping in d)(1) .

e. Emission Limitation:

3.0 lbs of SO2/1000 lbs of sulfur containing product.

Applicable Compliance Method:

This emission factor was established thru company's research and development program for this emissions unit.

If required, emission testing shall be performed to determine compliance with the SO2 emission limitation. The testing shall be conducted using the following method: Method 6 of 40 CFR, Part 60, Appendix A.

f. Emission Limitation:

Carbon monoxide (CO) emissions from the natural gas burner shall not exceed 0.084 pound per million BTU and 3.64 tons per year.

Applicable Compliance Method:

The hourly carbon monoxide emission rate from the natural gas burner was calculated by: (84 lbs of CO/MMft<sup>3</sup>)/(1000 MMBTU/ft<sup>3</sup>). The annual carbon



monoxide emission rate from the natural gas burner was calculated by:  $(0.084 \text{ lb/MMBTU}) \times (9.9 \text{ MMBTU/hr}) \times (8760 \text{ hrs/ year})$ .

g. Emission Limitation:

Carbon monoxide (CO) emissions from the indirect rotary calciner shall not exceed 12.72 pounds per hour and 6.63 ton per year.

Applicable Compliance Method:

The hourly carbon monoxide emission rate from the indirect rotary calciner was calculated by:  $(5.3 \text{ lbs of CO}/1000 \text{ lbs of acetate containing product}) \times (2400 \text{ lbs of acetate containing product/hr})$ . The annual carbon monoxide emission rate from the indirect rotary calciner was calculated by:  $(2,500,000 \text{ lbs of acetate containing product/yr}) \times (5.3 \text{ lbs of CO}/1000 \text{ lbs of acetate containing product}) \times (1 \text{ ton}/2000 \text{ lbs})$ .

h. Emission Limitation:

Organic compound (OC) emissions from the indirect rotary calciner shall not exceed 1.7 pounds per hour and 0.89 ton per year.

Applicable Compliance Method:

The hourly organic compound emission rate from the indirect rotary calciner was calculated by:  $(0.71 \text{ lbs of OC}/1000 \text{ lbs of acetate containing product}) \times (2400 \text{ lbs of acetate containing product/hr})$ . The annual organic compound emission rate from the indirect rotary calciner was calculated by:  $(2,500,000 \text{ lbs of acetate containing product/yr}) \times (0.71 \text{ lbs of OC}/1000 \text{ lbs of acetate containing product}) \times (1 \text{ ton}/2000 \text{ lbs})$ .

i. Emission Limitation:

Organic compound (OC) emissions from the natural gas burner shall not exceed 0.0055 pound per million BTU and 0.24 ton per year.

Applicable Compliance Method:

The hourly organic compound emission rate from the natural gas burner was calculated by:  $(5.5 \text{ lbs of CO}/\text{MMft}^3)/ (1000 \text{ MMBTU}/\text{ft}^3)$ . The annual organic compound emission rate from the natural gas burner was calculated by:  $(0.0055 \text{ lb/MMBTU}) \times (9.9 \text{ MMBTU/hr}) \times (8760 \text{ hrs/ year})$ .

j. Emission Limitations:

Visible particulate emissions from any stack shall not exceed ten percent (10%) opacity, as a six-minute average.

Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then this emissions unit will be subject to the opacity limitation listed in OAC rule 3745-17-07(A)(1).



Applicable Compliance Method:

Compliance shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 2002.

- (2) Compliance with the operational restrictions in c)(1) through c)(4) of these terms and conditions shall be determined in accordance with the following methods:

- a. Production Limitation:

6875 tons of metal oxide product per year.

Applicable Compliance Method:

Compliance with the maximum annual metal oxide production limitation in c)(1) shall be demonstrated by the record keeping requirements specified in d)(1).

- b. Production Limitation:

875 tons of high NOx grade metal oxides per year.

Applicable Compliance Method:

Compliance with the high NOx grade metal oxide limitation in c)(2) shall be demonstrated by the record keeping requirements specified in d)(1).

- c. Production Limitation:

1250 tons of acetate-containing metal oxides per year.

Applicable Compliance Method:

- d. Compliance with the acetate-containing metal oxide limitation in c)(3) shall be demonstrated by the record keeping requirements specified in d)(1).

g) Miscellaneous Requirements

- (1) Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic compound will be less than 1.0 ton. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install 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 pollutant that has a listed TLV to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.