State of Ohio Environmental Protection Agency

STREET ADDRESS:
Lazarus Government Center
50 W. Town St., Suite 700
Columbus, Ohio 43215

TELE: (614) 644-3020 FAX: (614) 644-3184
www.epa.state.oh.us

MAILING ADDRESS:
P.O. Box 1049
Columbus, OH 43216-1049

Certified Mail

5/19/2009

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

DANIEL TATE
RHODIA INC
4775 PADDOCK RD
CINCINNATI, OH 45229

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE
Facility ID: 1431070001
Permit Number: P0104796
Permit Type: Renewal
County: Hamilton

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.

Ohio EPA maintains a document entitled "Frequently Asked Questions about the PTIO". The document can be downloaded from the DAPC Web page, www.epa.state.oh.us/dapc, from the "Permits" link. This document contains additional information related to your permit, such as what activities are covered under the PTIO, who has enforcement authority over the permit and Ohio EPA's authorization to inspect your facility and records. Please contact the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469 if you need assistance.

The issuance of this PTIO is a final action of the Director and may be appealed to the Environmental Review Appeals Commission ("ERAC") under Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and describe the action complained of and the grounds for the appeal. The appeal must be filed with the ERAC within thirty (30) days after notice of the Director's action. A filing fee of $70.00 must be submitted to the ERAC with the appeal, although the ERAC, has discretion to reduce the amount of the filing fee if you can demonstrate (by affidavit) that payment of the full amount of the fee would cause extreme hardship. If you file an appeal of this action, you must notify Ohio EPA of the filing of the appeal (by providing a copy to the Director) within three (3) days of filing your appeal with the ERAC. Ohio EPA requests that a copy of the appeal also be provided to the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the ERAC at the following address:

Environmental Review Appeals Commission
309 South Fourth Street, Room 222
Columbus, OH 43215

If you have any questions regarding this permit, please contact the Hamilton County Dept. of Environmental Services. This permit has been posted to the Division of Air Pollution Control (DAPC) Web page www.epa.state.oh.us/dapc.

Sincerely,

Michael W. Ahern

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

Cc: HCDOES

State of Ohio Environmental Protection Agency
Division of Air Pollution Control

FINAL

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

Facility ID: 1431070001
Permit Number: P0104796
Permit Type: Renewal
Issued: 5/19/2009
Effective: 5/19/2009
Expiration: 5/19/2014

State of Ohio Environmental Protection Agency
Division of Air Pollution Control

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

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Authorization

Facility ID: 1431070001
Application Number(s): A0037333
Permit Number: P0104796
Permit Description: PTIO renewal of P001 (rotary dryer), P019 (rotary calciner),P029 (metal oxide slurry preparation), and P030 (metal oxide milling)
Permit Type: Renewal
Permit Fee: $0.00
Issue Date: 5/19/2009
Effective Date: 5/19/2009
Expiration Date: 5/19/2014
Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

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

Authorization (continued)

Permit Number: P0104796
Permit Description: PTIO renewal of P001 (rotary dryer), P019 (rotary calciner),P029 (metal oxide slurry preparation), and P030 (metal oxide milling)

Permits for the following emissions unit(s) or groups of emissions units are in this document as indicated below:

Emissions Unit ID:	**P001**
Company Equipment ID:	Rotary Dryer
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P019**
Company Equipment ID:	Rotary Calciner
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P029**
Company Equipment ID:	Metal Oxide Slurry Preparation
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P030**
Company Equipment ID:	Metal Oxide Milling System
Superseded Permit Number:	
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. 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.

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

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. P001, Rotary Dryer

Operations, Property and/or Equipment Description:

Rotary Dryer

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

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)	Particulate emissions (PE) and Particulate matter 10 microns and less in diameter (PM10) shall not exceed 0.50 pound per ton product. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1) and OAC rule 3745-31-05(D)(1)(a).
b.	OAC rule 3745-31-05(D)(1)(a) Synthetic Minor to avoid Title V permitting	Particulate emissions (PE) and Particulate matter 10 microns and less (PM10) shall not exceed 9.13 ton per year as a 12-month rolling summation.
c.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the stack serving this emissions unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.
d.	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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

a. None.

c) Operational Restrictions

(1) The maximum annual production rate for this emissions unit shall not exceed 36,500 tons, based upon a rolling, 12-month summation of the production rates. The permittee has existing records to demonstrate compliance with this requirement upon issuance of this permit.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain the following records each month:

a. The production rate for each month.

b. The rolling, 12-month summation of the production rate.

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 production limitations listed in c)(1). If no deviations occurred during the reporting period, the permittee shall state so in the report

(2) 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) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

0.50 pound per ton product

9.13 TPY of PE/PM10

Applicable Compliance Method:

The hourly emission rate from the emissions unit is based on site specific emission factor established with USEPA method 5 testing. The hourly potential

to emit is 0.50 lbs PE/PM10/ton product throughput. The annual potential to emit was calculated by: (0.50 lb/ton) x (36,500 tons of product /year) x (1 ton/2000 lbs) = 9.13 TPY.

b. Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20 percent (20%) opacity, as a six-minute average.

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) of these terms and conditions shall be determined in accordance with the following methods:

a. Production Limitation:

36,500 tons of product per year.

Applicable Compliance Method:

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

g) Miscellaneous Requirements

(1) None.

2. 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) (PTI 14-05788)	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. PE and PM10 from the indirect rotary calciner shall not exceed 0.60 pound per hour and 2.63 tons per year. PE/PM10 from the combustion of natural gas in this emissions unit shall not exceed 1.0 ton per year. Sulfur dioxide (SO_2) emissions from the indirect rotary calciner shall not exceed 2.31 pounds per hour and 0.55 ton per year. Carbon monoxide (CO) emissions from the indirect rotary calciner shall not

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		exceed 11.13 pounds per hour and 6.63 ton per year. Carbon monoxide (CO) emissions from the natural gas burner shall not exceed 0.084 pound per million BTU and 4.19 tons per year. Nitrogen oxide (NOx) emissions from the indirect rotary calciner and natural gas burner shall not exceed 54.0 pounds per hour. Organic compound (OC) emissions from the indirect rotary calciner shall not exceed 1.5 pounds per hour and 0.89 ton per year. Organic compound (OC) emissions from the natural gas burner shall not exceed 0.0055 pound per million BTU and 0.27 ton per year. See b)(1)c., and c)(1) through c)(5) 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).
b.	OAC rule 3745-31-05(D)(1)(a) Synthetic Minor to avoid Non-Attainment New Source Review	Nitrogen oxide (NOx) emissions from the indirect rotary calciner and combustion of natural gas in this emissions unit shall not exceed 29.3 tons per year, based on a rolling 12-month summation.
c.	OAC rule 3745-17-07(A)(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).
d.	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).
e.	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.
f.	OAC rule 3745-18-06(E)(2)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		rule 3745-31-05(A)(3).

(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.

c) Operational Restrictions

(1) The maximum annual metal oxide production rate for all metal oxides for this emissions unit shall not exceed 6875 tons, based upon a rolling, 12-month summation of the production rates. The permittee has existing records to demonstrate compliance with this requirement upon issuance of this permit.

(2) The maximum annual production rate of high NOx grade metal oxides for this emissions unit shall not exceed 875 tons, based upon a rolling, 12-month summation of the production rates. The permittee has existing records to demonstrate compliance with this requirement upon issuance of this permit.

(3) The maximum annual production rate of sulfur-containing metal oxides for this emissions unit shall not exceed 500 tons.

(4) The maximum annual production rate of acetate-containing metal oxides for this emissions unit shall not exceed 1250 tons.

(5) 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 sulfur-containing metal oxides production rate for each month.

d. The acetate-containing metal oxides production rate for each month.

e. The monthly NOx emissions, in tons.

f. The rolling, 12-month summation of the high NOx grade metal oxide production rate.

g. The rolling, 12-month summation of the total metal oxide production rate.

h. 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:

f. a description of the corrective action;

g. the date corrective action was completed;

h. the date and time the deviation ended;

i. the total period of time (in minutes) during which there was a deviation;

j. the pressure drop readings immediately after the corrective action was implemented; and

k. 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.

(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.

(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:

0.13 lb/hr of PE/PM10 from the calciner feed hopper

0.57 TPY of PE/PM10 from the calciner feed hopper

Applicable Compliance Method:

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

b. Emission Limitation:

0.60 lb/hr of PE/PM10 from the indirect rotary calciner

2.63 TPY of PE/PM10 from the indirect rotary calciner

Applicable Compliance Method:

The hourly and annual particulate emission rate from the indirect rotary calciner is based on the emission unit's potential to emit. The hourly potential to emit was calculated by: (0.02 grain/ft^3) x (3500 ft^3/min) x (60 min/hr) x (1 lb/7000 grains). The annual potential to emit was calculated by: (0.60 lb/hr) x (8760 TPY).

c. Emission Limitation:

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

1.0 TPY of PE/PM10 from the combustion of natural gas in the indirect rotary calciner

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.

d. Emission Limitation:

54.0 lbs/hr of nitrogen oxides from the indirect rotary calciner and natural gas burner

29.3 TPY of nitrogen oxides from the indirect rotary calciner and natural gas burner

Applicable Compliance Method:

The hourly nitrogen oxide emission rate from the indirect rotary calciner was calculated by: (0.025 lb NOx/lbs high NOx product) x (2100 lbs high NOx product/hr) added to (0.1 lb NOx/MMBTU) x (11.4 MMBTU/hr.). The annual nitrogen oxide emission rate from the indirect rotary calciner was calculated by: [{(1,750,000 lbs high NOx product/yr) x (0.025 lb NOx/lbs high NOx product) x (1 ton/2000 lbs)} + {(12,000,000 lbs low NOx product/yr) x (0.0004 lb NOx/lbs low NOx product) x (1/2000lbs)}] added to (0.1 lb/MMBTU) x (11.4 MMBTU/hr) x (8760 hr/yr) x 1 ton/2000 lbs.). Compliance with the annual limit will be determined by the record keeping in d)(1) .

e. Emission Limitation:

2.31 lbs/hr sulfur dioxide from the indirect rotary calciner

0.55 TPY sulfur dioxide from the indirect rotary calciner.

Applicable Compliance Method:

The hourly sulfur dioxide emission rate from the indirect rotary calciner was calculated by: (1.1 lbs SO_2/1000 lbs sulfur containing product) x (2100 lbs sulfur containing product/hr). The annual sulfur dioxide emission rate from the indirect rotary calciner was calculated by: (1,000,000 lbs sulfur containing product/yr) x (1.1 lbs SO_2/1000 lbs sulfur containing product) x (1 ton/2000 lbs).

f. Emission Limitation:

0.084 lb/MMBTU carbon monoxide from the natural gas burner

4.19TPY carbon monoxide from the natural gas burner

Applicable Compliance Method:

The hourly carbon monoxide emission rate from the natural gas burner was calculated by: (84 lbs CO/MMft^3) / (1000 MMBTU/ft^3). The annual carbon monoxide emission rate from the natural gas burner was calculated by: (0.084 lb/MMBTU) x (11.4 MMBTU/hr) x (8760 hr/ year).

g. Emission Limitation:

11.13 lbs/hr carbon monoxide from the indirect rotary calciner

6.63 TPY carbon monoxide from the indirect rotary calciner

Applicable Compliance Method:

The hourly carbon monoxide emission rate from the indirect rotary calciner was calculated by: (5.3 lbs CO/1000 lbs acetate containing product) x (2100 lbs acetate containing product/hr). The annual carbon monoxide emission rate from the indirect rotary calciner was calculated by: (2,500,000 lbs acetate containing product/yr) x (5.3 lbs CO/1000 lbs acetate containing product) x (1 ton/2000 lbs).

h. Emission Limitation:

1.5 lbs/hr organic compounds from the indirect rotary calciner

0.89 TPY organic compounds from the indirect rotary calciner

Applicable Compliance Method:

The hourly organic compound emission rate from the indirect rotary calciner was calculated by: (0.71 lbs OC/1000 lbs acetate containing product) x (2100 lbs acetate containing product/hr). The annual organic compound emission rate from the indirect rotary calciner was calculated by: (2,500,000 lbs acetate containing product/yr) x (0.71 lbs CO/1000 lbs acetate containing product) x (1 ton/2000 lbs).

i. Emission Limitation:

0.0055 lb/MMBTU organic compounds from the natural gas burner

0.27 TPY organic compounds from the natural gas burner

Applicable Compliance Method:

The hourly organic compound emission rate from the natural gas burner was calculated by: (5.5 lbs CO/MMft^3) / (1000 MMBTU/ft^3). The annual organic compound emission rate from the natural gas burner was calculated by: (0.0055 lb/MMBTU) x (11.4 MMBTU/hr) x (8760 hr/ year).

j. Emission Limitation:

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

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:

500 tons of sulfur-containing metal oxides per year.

Applicable Compliance Method:

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

Production Limitation:

1250 tons of acetate-containing metal oxides per year.

Applicable Compliance Method:

Compliance with the acetate-containing metal oxide limitation in c)(4) 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 AAir 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 Amodification@ 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.

3. P029, Metal Oxide Slurry Preparation

Operations, Property and/or Equipment Description:

Metal Oxide Milling System

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

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

a. None.

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

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific 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)	Ammonia (NH3) emissions from this emissions unit shall not exceed 13 pounds per hour and 7.5 tons per year (as a 12-month rolling summation)

(2) Additional Terms and Conditions

a. The emissions from this emissions unit shall be vented to the wet scrubber at all times the emissions unit is in operation.

c) Operational Restrictions

(1) The maximum annual oxide production rate for NH3 containing slurries for this emissions unit shall not exceed 2500 tons as solids, based upon a rolling, 12-month summation of the production rates. The permittee has existing records to demonstrate compliance with this requirement upon issuance of this permit.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain monthly records of the NH3 containing slurries produced in this emissions unit.

(2) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the scrubber supply pressure shall be maintained within the ranges established during the most recent emission test where compliance was demonstrated, or in accordance with the manufacturer's recommendations, at all time while the emissions unit is in operation.

(3) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the scrubber liquid flow rate shall be maintained within the ranges established during the most recent emission test where compliance was demonstrated, or in accordance with the manufacturer's recommendations, at all time while the emissions unit is in operation.

(4) The permittee shall properly install, operate, and maintain equipment to continuously monitor the scrubber supply pressure (in psig) and the scrubber liquid flow rate (in gallons per minute) during operation of this/these emissions unit(s), including periods of startup and shutdown. The permittee shall record the pressure drop across the scrubber and the scrubber liquid=s flow rate on a daily 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 any parameter deviates from the range(s) or minimum limit(s) 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 control equipment parameters within the acceptable range(s), or at or above the minimum limit(s) 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:

f. a description of the corrective action;

g. the date the corrective action was completed;

h. the date and time the deviation ended;

i. the total period of time (in minutes) during which there was a deviation;

j. the pressure drop and flow rate readings immediately after the corrective action was implemented; and

k. 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.

These range(s) and/or limit(s) for the pressure drop and liquid flow rate are 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 range or limit for the pressure drop or liquid flow rate based upon information obtained during future performance tests that demonstrate compliance with the allowable particulate emission rate for this/these 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) 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 identify in the annual permit evaluation report the following information concerning the operations of the wet scrubber during the 12-month reporting period for this/these emissions unit(s):

a. each period of time (start time and date, and end time and date) when the scrubber supply pressure, or the liquid flow rate, was/were outside of the appropriate range or exceeded the applicable limit contained in this permit;

b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the scrubber;

c. each incident of deviation described in Aa@ or “b” (above) where a prompt investigation was not conducted;

d. each incident of deviation described in Aa@ or “b” where prompt corrective action, that would bring the pressure drop, liquid flow rate, and/or scrubber liquid pH into compliance with the appropriate range or limit contained in this permit, was determined to be necessary and was not taken; and

e. each incident of deviation described in Aa@ or “b” where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

f) Testing Requirements

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

a. Emission Limitation:

13 pounds NH3 per hour;

7.5 tons per year (as a 12-month rolling summation)

Applicable Compliance Method:

The hourly NH3 emission rate was calculated by: (0.13 lbs. NH3/lb. solids produced) x (5,000 lbs. solids produced/hr) x (1-0.98 representing the control efficiency of the scrubber). The annual potential to emit was calculated by: (0.13 lbs. NH3/lb. solids produced) x (5,000,000 lbs. solids produced/yr) x (1-0.98 representing the control efficiency of the scrubber)

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

a. Production Limitation:

2500 tons of solids from NH3 containing slurries 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).

g) Miscellaneous Requirements

(1) None.

4. P030, Metal Oxide Milling System

Operations, Property and/or Equipment Description:

FP Steam Mill

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

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

a. None.

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

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific 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) (PTI 14-05117)	Particulate emissions (PE) and Particulate matter 10 microns and less (PM10) shall not exceed 0.64 pound per hour and 2.81 ton per year. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1).
b.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the stack serving this emissions unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.
c.	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).

(2) Additional Terms and Conditions

a. The emissions from this emissions unit shall be vented to the baghouse at all times the emissions unit is in operation.

c) Operational Restrictions

a. None.

d) Monitoring and/or Recordkeeping Requirements

(1) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across the baghouse is between 1 to 6 inches of water.

(2) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse 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 baghouse 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:

f. a description of the corrective action;

g. the date corrective action was completed;

h. the date and time the deviation ended;

i. the total period of time (in minutes) during which there was a deviation;

j. the pressure drop readings immediately after the corrective action was implemented; and

k. 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 a administrative modification.

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 identify in the annual permit evaluation report the following information concerning the operations of the baghouse during the 12-month reporting period for this/these emissions unit(s):

a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;

b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;

c. each incident of deviation described in Aa@ (above) where a prompt investigation was not conducted;

d. each incident of deviation described in Aa@ where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and

e. each incident of deviation described in Aa@ where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) shall be determined in accordance with the following methods:

a. Emission Limitation:

0.64 lb/hr of PE/PM10 from the calciner feed hopper

2.81 TPY of PE/PM10 from the calciner feed hopper

Applicable Compliance Method:

The hourly and annual particulate emission rate is based on the emission unit's potential to emit. The hourly potential to emit was calculated by: (0.02 grain/ft^3) x (1350 ft^3/min) x (60 min/hr) x (1 lb/7000 grains) from each of feed and QC silos plus ACM/product collector emissions of based on a minimum product recovery of 99.99% (1800 lbs product/hr)x(1-.9999) = 0.64 lb./hr. The annual potential to emit was calculated by: (0.54 lb/hr) x (8760 hr/year) x (1 ton/2000 lbs).

g) Miscellaneous Requirements

(1) None.