Ohio Environmental Protection Agency

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

12/18/2015

Certified Mail

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

Mr. Tim Duckwall
Calgon Carbon Corp.
835 N. Cassady Ave.
Columbus, OH 43219

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

Facility ID: 0125040716
Permit Number: P0119792
Permit Type: Administrative Modification
County: Franklin

Dear Permit Holder:

A draft of the Ohio Administrative Code (OAC) Chapter 3745-31 Air Pollution Permit-to-Install and Operate (PTIO)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 public comments on the permit. A public notice will appear in the Ohio Environmental Protection Agency (EPA) Weekly Review and the local newspaper, The Columbus Dispatch. A copy of the public notice and the draft permit are enclosed. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page,www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab. 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
50 West Town Street Suite 700
PO Box 1049
Columbus, Ohio 43216-1049

and

Ohio EPA DAPC, Central District Office
50 West Town Street, 6th Floor
P.O. Box 1049
Columbus, OH 43216-1049

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 if a public hearing is scheduled. A decision on issuing a final permit-to-install 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 is indicated in the Authorization section. Please do not submit any payment now.If you have any questions, please contact Ohio EPA DAPC, Central District Office at (614)728-3778.

Sincerely,

Michael E. Hopkins, P.E.
Assistant Chief, Permitting Section, DAPC

Cc: U.S. EPA Region 5*Via E-Mail Notification*
Ohio EPA-CDO

Permit Strategy Write-Up

1. Check all that apply:

   xSynthetic Minor Determination

   Netting Determination

2. Source Description:

   Calgon Carbon Corporation is a carbon reactivation facility located at 835 N. Cassady Ave in Columbus, Ohio. It is currently a Title V facility. The facility wishes to make their control equipment, which includes scrubbers to control PE, SO2, and HCl and afterburners to control VOC, federally enforceable and change to a synthetic minor status.

3. Facility Emissions and Attainment Status:

   This facility emits the following criteria pollutants: VOC, CO, NO_X, SO_2, and PE. This facility also emits HCl and other air toxics. Currently Franklin County is in marginal attainment for 8-hour ozone.

4. Source Emissions:

   There are three significant emissions units in the application, kilns P028, P035, and P036. All other EUs are Insignificant, PBR or Registration. Facility-wide terms and conditions take into account emissions from not only the three significant EUs, but also all other EUs that are Insignificant, PBR, or Registration. P028 and P036 are the municipal kilns and were grouped together. These kilns only reactivate carbon from municipal sources. P035 reactivates carbon from all other sources. The emissions values were calculated based on stack test results.

   Appropriate monitoring and record keeping requirements are included in the permit as well as production rate limitations for each kiln which were established at maximum (as noted in the Emission Activity Category forms included in the application).

5. Conclusion: The issuance of P0119792 is recommended.

6. Please provide additional notes or comments as necessary:

   None

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

Pollutant	Tons Per Year
VOC	70.6
CO	13.1
NO_X	30.0
SO_2	14.0

PM	5.1
HCl	9.1
Total HAP	9.6

PUBLIC NOTICE

The following matters are the subject of this public notice by the Ohio Environmental Protection Agency. The complete public notice, including any additional instructions for submitting comments, requesting information, a public hearing, or filing an appeal may be obtained at:http://epa.ohio.gov/actions.aspx or Hearing Clerk, Ohio EPA, 50 W. Town St., Columbus, Ohio 43215. Ph: 614-644-2129 email:HClerk@epa.ohio.gov

Draft Air Pollution Permit-to-Install and Operate Administrative Modification
Calgon Carbon Corp.
835 N. Cassady Ave.,, Columbus, OH 43219
ID#:P0119792
Date of Action: 12/18/2015
Permit Desc:Administrative modification to make the use of the control devices at the facility "federally enforceable" and change the permitting classification from Title V to Synthetic Minor..
The permit and complete instructions for requesting information or submitting comments may be obtained at: http://epa.ohio.gov/dapc/permitsonline.aspx by entering the ID # or: Jason Fister, Ohio EPA DAPC, Central District Office, 50 West Town Street, 6th Floor P.O. Box 1049, Columbus, OH 43216-1049. Ph: (614)728-3778

DRAFT

Division of Air Pollution Control
Permit-to-Install and Operate
for
Calgon Carbon Corp.

Facility ID:	0125040716
Permit Number:	P0119792
Permit Type:	Administrative Modification
Issued:	12/18/2015
Effective:	To be entered upon final issuance
Expiration:	To be entered upon final issuance

Ohio Environmental Protection Agency

Division of Air Pollution Control
Permit-to-Install and Operate
for
Calgon Carbon Corp.

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Authorization

Facility ID:	0125040716
Application Number(s):	A0054403, A0054764
Permit Number:	P0119792
Permit Description:	Administrative modification to make the use of the control devices at the facility "federally enforceable" and change the permitting classification from Title V to Synthetic Minor.
Permit Type:	Administrative Modification
Permit Fee:	$300.00*DO NOT send payment at this time, subject to change before final issuance*
Issue Date:	12/18/2015
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:

Calgon Carbon Corp.
835 N. Cassady Ave.
Columbus, OH 43219

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

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

Ohio EPA DAPC, Central District Office
50 West Town Street, 6th Floor
P.O. Box 1049
Columbus, OH 43216-1049
(614)728-3778

The above named entity is hereby granted this Permit-to-Install and Operate for the air contaminant source(s) (emissions unit(s))listed in this section pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the described emissions unit(s) will operate in compliance with applicable State and Federal laws and regulations.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Craig W. Butler
Director

Authorization (continued)

Permit Number: P0119792
Permit Description: Administrative modification to make the use of the control devices at the facility "federally enforceable" and change the permitting classification from Title V to Synthetic Minor.

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

Emissions Unit ID:	**P035**
Company Equipment ID:	79 Reactivation Kiln
Superseded Permit Number:	P0112489
General Permit Category and Type:	Not Applicable

Group Name: Municipal Kilns

Emissions Unit ID:	**P028**
Company Equipment ID:	20A Reactivation Kiln
Superseded Permit Number:	01-08619
General Permit Category andType:	Not Applicable
Emissions Unit ID:	**P036**
Company Equipment ID:	20B Reactivation Kiln
Superseded Permit Number:	01-08619
General Permit Category andType:	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 of this permit will no longer be applicable after issuance of the Title V permit: Section B, Term 1.b) and Section C, for each emissions unit, Term a)(2).

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

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

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

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

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

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

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

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

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

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

You should notify Ohio EPA of any emissions unit that is permanently shut down by submitting 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 beingpermanently shut down without first applying for and obtaining a permit pursuantto 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.

      (2) 2. through 5.

2. In accordance with OAC rule 3745-31-05(D) to avoid Title V, NSR and MACT, the emissions of particulate matter (PE), sulfur dioxide (SO2), and volatile organic compounds (VOC), and hazardous air pollutants (HAPs) as identified in Section 112(b) of Title III of the Clean Air Act, shall be limited as follows:

   a) Hydrochloric acid emissions, and any other individual hazardous air pollutant (HAP) emissions, from emissions units P028, P035, P036 and all other emissions units at this facility, including but not limited to any de minimis emissions units as defined in OAC rule 3745-15-05, or any registration status and/or permit exempt/permit-by-rule emissions units pursuant to OAC rule 3745-31-03 combined, shall not exceed 9.9 tons per rolling, 12-month period.

   b) Total HAP emissions from emissions units P028, P035, P036 and all other emissions units at this facility, including but not limited to any de minimis emissions units as defined in OAC rule 3745-15-05, or any registration status and/or permit exempt/permit-by-rule emissions units pursuant to OAC rule 3745-31-03 combined, shall not exceed 24.9 tons per rolling, 12-month period.

   c) Particulate emissions (PE) from emissions units P028, P035, P036 and all other emissions units at this facility, including but not limited to any de minimis emissions units as defined in OAC rule 3745-15-05, or any registration status and/or permit exempt/permit-by-rule emissions units pursuant to OAC rule 3745-31-03 combined, shall each not exceed 99 tons per rolling, 12-month period.

   d) Sulfur dioxide (SO2) emissions from emissions units P028, P035, P036 and all other emissions units at this facility, including but not limited to any de minimis emissions units as defined in OAC rule 3745-15-05, or any registration status and/or permit exempt/permit-by-rule emissions units pursuant to OAC rule 3745-31-03 combined, shall each not exceed 99 tons per rolling, 12-month period.

   e) Volatile organic compound (VOC) emissions from emissions units P028, P035, P036 and all other emissions units at this facility, including but not limited to any de minimis emissions units as defined in OAC rule 3745-15-05, or any registration status and/or permit exempt/permit-by-rule emissions units pursuant to OAC rule 3745-31-03 combined, shall each not exceed 99 tons per rolling, 12-month period.

3. The permittee shall maintain monthly records of the following information:

   a) the facility-wide PE emissions, in tons per month;

   b) the facility-wide SO2 emissions, in tons per month;

   c) the facility-wide VOC emissions, in tons per month;

   d) the facility-wide individual HAP emissions, in tons per month;

   e) the facility-wide total HAP emissions, in tons per month;

   f) the facility-wide rolling, 12-month summation of PE emissions, in tons;

   g) the facility-wide rolling, 12-month summation of SO2 emissions, in tons;

   h) the facility-wide rolling, 12-month summation of VOC emissions, in tons;

   i) the facility-wide rolling, 12-month summation of individual HAP emissions, in tons; and

   j) the facility-wide rolling, 12-month summation of total HAP emissions, in tons.

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

   a) all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:

      (1) all exceedances of the facility-wide rolling, 12-month PE, SO2, and VOC emissions limitations; and

      (2) all exceedances of the facility-wide rolling, 12-month individual and total HAP emissions limitations.

   b) the probable cause of each deviation (excursion);

   c) any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and

   d) the magnitude and duration of each deviation (excursion).

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

   The quarterly reports shall be submitted, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the director (Ohio EPA, Central District Office).

5. Compliance with the rolling, 12-month HAP emissions limitations specified in section B.2 of the terms and conditions shall be determined in accordance with the recordkeeping specified in section B.3 using the following methods:

   a) For each de minimis, registration status, permit exempt, and permit-by-rule emissions unit, emissions shall be calculated based on either monthly usage records or worst-case potential.

   b) The permittee shall collect facility-wide natural gas usage from the billing meters associated with the facility. Individual and combined emissions shall be calculated from the monthly usage records and the applicable AP-42 emission factors.

   c) For emissions units P028, P035 and P036, the PE, SO2, VOC, and HCl emissions shall be calculated by multiplying the average hourly HCl emissions observed during the most recent emissions test for each emissions unit by the total hours of operations for each emissions unit.

   d) For emissions units P028, P035 and P036, the metal and organic HAP emissions from the scrubber stacks shall be calculated based on either monthly usage records or worst-case potential.

C. Emissions Unit Terms and Conditions

1. P035, 79 Reactivation Kiln

Operations, Property and/or Equipment Description:

(79 Reactivation Kiln) Regenerate carbon

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. d)(10) & e)(4)

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

a. b)(1)f., b)(2)c. – b)(2)f., c)(1), d)(1) – d)(8), e)(5), f)(1)a., -f)(1)d., f)(1)h., f)(1)i. & f)(2)

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Particulate emissions (PE) shall not exceed 0.46 pound per hour (lb/hr) and 2.00 tons per year (TPY). Sulfur Dioxide (SO_2) emissions shall not exceed 2.1 lb/hr and 9.2 TPY. Nitrous Oxides (NO_2) emissions shall not exceed 1.21 lb/hr and 5.3 TPY. Volatile Organic Compound (VOC) emissions shall not exceed 1.0 lb/hr and 4.3 TPY. Carbon Monoxide (CO) emissions shall not exceed 3.08 lb/hr and 13.5 TPY. See b)(2)a.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
b.	OAC rule 3745-31-05(A)(3)(a)(ii)	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PE, SO_2, NO_X, and VOC emissions from this air contaminant source since the controlled potentials to emit, taking into account the federally enforceable restriction in b)(1)e., are less than 10 tons per year. See b)(2)b. below.
c.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (VE) from any stack shall not exceed 20 percent opacity as a six-minute average, except as provided by rule. The presence of water vapor in the scrubber plume does not constitute visible emissions.
d.	OAC rule 3745-17-11(B)(1)	Particulate emissions (PE) from this unit shall not exceed 1.39 pounds per hour, based on Figure II.
e.	OAC rule 3745-31-05(D) (Federally enforceable limitations to avoid Title V, NSR, & MACT)	PE shall not exceed 2.0 tons per rolling, 12-month period. VOC emissions shall not exceed 4.3 tons per rolling, 12-month period. SO_2 emissions shall not exceed 9.2 tons per rolling, 12-month period. Hydrochloric Acid (HCl) emissions shall not exceed 0.19 lb/hr and 0.84 tons per rolling, 12-month period. See 2. through 5. of Section B. - Facility-Wide Terms and Conditions and b)(2)c. through b)(2)f

(2) Additional Terms and Conditions

a. These BAT emission limits apply until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).

b. This requirement applies once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.

c. This emission unit shall vent all emissions to an afterburner and scrubber at all times the emission unit is in operation.

d. The afterburner controlling VOC emissions from this emissions unit shall operate with a minimum control efficiency of 95%, by weight, for VOC emissions.

e. The scrubber controlling the PE, SO_2 and HCl emissions from this emissions unit shall operate with a minimum control efficiency of 95%, by weight.

f. The maximum production rate for this emissions unit shall not exceed 770 pounds of carbon per hour.

c) Operational Restrictions

(1) The annual carbon throughput for this emissions unit shall not exceed 3,372.6 tons per year.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain daily records of the following:

a. amount of carbon treated in this emission unit, in pounds;

b. the number of hours this emission unit operates, and

c. the average hourly amount of carbon treated in this emission unit.

(2) The permittee shall maintain monthly records of the following information:

a. the average hourly PE, VOC, HCl, and SO_2 emissions, as demonstrated during the most recent emissions test, in pounds per hour;

b. the total number of hours the emissions unit operated;

c. the total monthly PE, VOC, HCl, and SO_2 emissions, in pounds;

d. the rolling, 12-month summations of PE, VOC, HCl, and SO_2 emissions, in tons; and

e. the rolling, 12-month summations of annual carbon throughput.

(3) The permittee shall properly operate and maintain equipment to monitor the water flow rate through the scrubber while the emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information each day:

a. the average water flow rate through the scrubber, in gallons per minute, for all 3-hour blocks of time that the emissions unit was operated; and

b. the downtime for the control device and monitoring equipment when the associated emissions unit was in operation.

The average water flow rate through the scrubber, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 80 gallons per minute.

(4) The permittee shall properly operate and maintain equipment to monitor the pressure drop across the scrubber while the emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information each day:

a. the average pressure drop across the scrubber, in inches of water, for all 3-hour blocks of time that the emissions unit was operated; and

b. the downtime for the control device, monitoring equipment when the associated emissions unit was in operation.

The average pressure drop across the scrubber, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 15 inches of water.

(5) The permittee shall properly operate and maintain equipment to monitor the pH of the scrubber's liquor while the emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information each day:

a. the average pH of the scrubber's liquor, for all 3-hour blocks of time that the emissions unit was operated; and

b. the downtime for the control device and monitoring equipment when the associated emissions unit was in operation.

The average pH of the scrubber's liquor, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 6.5.

(6) 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, flow rate, and pH 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, liquid flow rate, and pH are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by Ohio EPA, Central District Office. The permittee may request revisions to the permitted range or limit for the pressure drop, liquid flow rate, or pH based upon information obtained during future performance tests that demonstrate compliance with the allowable PE, SO2, VOC, and HCL emission rates 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.

(7) The permittee shall operate and maintain a continuous temperature monitor and recorder that measures and records the combustion temperature within the thermal incinerator when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

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

(8) Whenever the monitored average combustion temperature within the thermal oxidizer deviates from the range or limit 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/limit 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 temperature 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.

The temperature range/limit is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by Ohio EPA, Central District Office. The permittee may request revisions to the permitted temperature range/limit based upon information obtained during future performance tests that demonstrate compliance with the allowable emission rate(s) for the controlled pollutant(s). In addition, approved revisions to the temperature range/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.

(9) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be

noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emissions incident; and

e. any corrective actions taken to eliminate the visible emissions

If visible emissions are present, a visible emissions incident has occurred. The observer does not have to document the exact start and end times for the visible emissions incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emissions incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

(10) Modeling to demonstrate compliance with, the “Toxic Air Contaminant Statute”, ORC 3704.03(F)(4)(b), was not necessary because the emissions unit’s maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires a permittee 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 toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit-to-install.

e) Reporting Requirements

(1) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the District Office or Local Air Agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid

electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services.

(2) The permittee shall submit an annual Permit Evaluation Report (PER) to Ohio EPA. The PER must be submitted by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.

(3) The permittee shall identify the following information in the annual PER in accordance with the monitoring requirements in section d) above:

a. all days during which any visible particulate emissions were observed from the stack serving this emissions unit;

b. any corrective actions taken to minimize or eliminate the visible particulate emissions;

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

d. 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;

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

f. each incident of deviation described in “c” or “d” 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

g. each incident of deviation described in “c” or “d” 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.

h. each period of time (start time and date, and end time and date) when the average combustion temperature within the thermal incinerator was outside of the acceptable range;

i. 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 thermal incinerator;

j. each incident of deviation described in “h” or “i” (above) where a prompt investigation was not conducted;

k. each incident of deviation described in “h” or “i” where prompt corrective action, that would bring the emissions unit(s) into compliance and/or the temperature

within the thermal incinerator into compliance with the acceptable range, was determined to be necessary and was not taken; and

l. each incident of deviation described in "h" or "i" 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.

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

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

a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:

i. 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;

ii. 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 thermal incinerator;

iii. all 3-hour periods of time during which the average water flow rate through the scrubber was not maintained at or above the required level;

iv. all 3-hour periods of time during which the average pressure drop across the scrubber was not maintained at or above the required level;

v. all 3-hour periods of time during which the average pH of the scrubber's liquor was not maintained at or above the required level;

vi. all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emission tests that demonstrated that the emissions unit was in compliance; all exceedances of the rolling, 12-month PE, VOC, HCl and SO_2 emissions limitations;

vii. all exceedances of the rolling, 12-month PE, VOC, HCl and SO_2 emissions limitations; and

viii. all exceedances of the maximum hourly production limitation.

b. the probable cause of each deviation (excursion);

c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and

d. the magnitude and duration of each deviation (excursion).

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

The quarterly reports shall be submitted, 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 (Ohio EPA, Central District Office).

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. <u>Emission Limitations:</u>

PE shall not exceed 0.46 pound per hour and 2 TPY.

PE shall not exceed 2.0 tons per rolling, 12-month period.

<u>Applicable Compliance Method:</u>

Compliance with the hourly PE limitation shall be determined through emissions testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 5 as specified in f)(2) below.

Compliance with the annual and rolling, 12-month emissions limitations shall be determined through the recordkeeping specified in d) above.

b. <u>Emission Limitations:</u>

VOC emissions shall not exceed 1.0 pounds per hour and 4.3 TPY.

VOC emissions shall not exceed 4.3 tons per rolling, 12-month period.

<u>Applicable Compliance Method:</u>

Compliance with the hourly VOC limitation shall be determined through emissions testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, 25 or 18 and/or 25A as specified in f)(2) below.

Compliance with the annual and rolling, 12-month emissions limitations shall be determined through the recordkeeping specified in d) above.

c. Emission Limitations:

SO_2 from this unit shall not exceed 2.1 pounds per hour and 9.2 TPY.

SO_2 emissions shall not exceed 9.2 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the hourly SO_2limitation shall be determined through emissions testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, and 6 or 6c as specified in f)(2) below.

Compliance with the annual and rolling, 12-month emissions limitations shall be determined through the recordkeeping specified in d) above.

d. Emission Limitations:

HCl from this unit shall not exceed 0.19 pounds per hour and 0.84 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the hourly HCL limitation shall be determined through emissions testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, and 26 and/or 26A, as applicable, as specified in f)(2) below.

Compliance with the rolling, 12-month emissions limitations shall be determined through the recordkeeping specified in d) above.

e. Emission Limitations:

NO_X emissions shall not exceed 1.21 pounds per hour and 5.3 TPY.

Applicable Compliance Method:

If required, compliance shall be demonstrated through emissions tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, and 7E.

The annual emission limitation was established by multiplying the hourly emission limitation by 8,760 hr/yr and dividing by 2,000 lb/ton. Therefore, compliance with the annual emission limitation is ensured if compliance is maintained with the hourly emission limitation.

f. Emission Limitations:

CO emissions shall not exceed 3.08 pounds per hour and 13.5 TPY.

Applicable Compliance Method:

If required, compliance shall be demonstrated through emissions tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, and 10.

The annual emission limitation was established by multiplying the hourly emission limitation by 8,760 hr/yr and dividing by 2,000 lb/ton. Therefore, compliance with the annual emission limitation is ensured if compliance is maintained with the hourly emission limitation.

g. Emission Limitations:

Particulate emissions (PE) from this unit shall not exceed 1.39 pounds per hour, based on Figure II.

Applicable Compliance Method:

Compliance with the hourly PE limitation shall be determined through emissions testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-5 as specified in f)(2) below.

h. Emission Limitation:

The afterburner controlling VOC emissions from this emissions unit shall operate with a minimum control efficiency of 95%, by weight, for VOC emissions.

Applicable Compliance Method

The control efficiency cannot be determined due to the inlet not meeting U.S. EPA Method 1 Sample Location requirements, therefore until such time as a redesign occurs, compliance with the applicable term and condition shall be based upon the parametric monitoring recordkeeping specified in d) above.

i. Emission Limitation:

The scrubber controlling the PE, SO_2 and HCl emissions from this emissions unit shall operate with a minimum control efficiency of 95%, by weight.

Applicable Compliance Method

The control efficiency cannot be determined due to the inlet not meeting U.S. EPA Method 1 Sample Location requirements, therefore, until such time as a redesign occurs, compliance with the applicable term and condition shall be based upon the parametric monitoring recordkeeping specified in d) above.

j. Emission Limitation:

Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:

If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

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

a. The emissions testing shall be conducted within 6 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the hourly emission limitations for PE, SO_2, HCl and VOC.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates:

SO_2, Methods 1 through 4 and 6, 6A, and/or 6C, as applicable, of 40 CFR Part 60, Appendix A

VOC, Methods 1 through 4 and 18, 25, and/or 25A, as applicable, of 40 CFR Part 60, Appendix A

HCL, Methods 1through 4 and 26 and/or 26A, as applicable, of 40 CFR Part 60, Appendix A

Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA, Central District Office.

d. The test(s) shall be conducted under those representative conditions that challenge to the fullest extent possible a facility's ability to meet the applicable emissions limits and/or control requirements, unless otherwise specified or approved by Ohio EPA, Central District Office, Division of Air Pollution Control. Although this generally consists of operating the emissions unit at its maximum material input/production rates and results in the highest emission rate of the tested pollutant, there may be circumstances where a lower emissions loading is deemed the most challenging control scenario. Failure to test under these conditions is justification for not accepting the test results as a demonstration of compliance.

e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to Ohio EPA, Central District Office, Division of Air Pollution Control. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in Ohio EPA, Central District Office's refusal to accept the results of the emission test(s).

f. Personnel from Ohio EPA, Central District Office, Division of Air Pollution Control shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the

emissions from the emissions unit and/or the performance of the control equipment.

g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to Ohio EPA, Central District Office, Division of Air Pollution Control within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from Ohio EPA, Central District Office, Division of Air Pollution Control.

g) Miscellaneous Requirements

(1) None.

2. Emissions Unit Group -Municipal Kilns: P028, P036,

EU ID	Operations, Property and/or Equipment Description
P028	Carbon Regeneration Kiln 20A controlled by a thermal incinerator, wet scrubber and venturi scrubber
P036	Carbon regeneration kiln 20B controlled by a thermal incinerator, a wet scrubber and a venturi scrubber

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

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

a. b)(1)d., d)(10) – d)(12) and e)(4)

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

a. b)(1)e., b)(2)a., b)(2)b., c)(1), d)(1) – d)(7), e)(5), f)(1)a., f)(1)d. - f)(1)h. and f)(2)

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Particulate Emissions (PE) shall not exceed 0.12 pounds per hour and 0.54 tons per year (TPY). Nitrogen Oxides (NO_X) emissions shall not exceed 1.52 pounds per hour and 6.66 TPY. Carbon Monoxide (CO) emissions shall not exceed 0.58 pounds per hour and 2.53 TPY. Volatile Organic Compounds (VOC) emissions shall not exceed 7.53 pounds per hour and 33.0 TPY.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		Sulfur Dioxide (SO_2) emissions shall not exceed 0.54 pounds per hour and 2.37 TPY. Hydrochloric Acid (HCl) emissions shall not exceed 0.94 pounds per hour and 4.12 TPY Barium emissions shall not exceed 0.001 pounds per hour and 0.004 TPY. Zinc emissions shall not exceed 0.0009 pounds per hour and 0.004 TPY. Copper emissions shall not exceed 0.0008 pounds per hour and 0.004 TPY. Cadmium emissions shall not exceed 0.002 pounds per hour and 0.009 TPY. Lead emissions shall not exceed 0.0002 pounds per hour and 0.0007 TPY. Arsenic emissions shall not exceed 0.0005 pounds per hour and 0.002 TPY. See b)(2)a. & b)(2)b.
b.	OAC rule 3745-17-07(A)(1)	Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
c.	OAC rule 3745-17-11(B)(1)	The PE limitation specified by this rule is less stringent than the PE limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	ORC 3704.03(F) (Air Toxics)	See d)(10) through d)(12) and e)(4)
e.	OAC rule 3745-31-05(D) (Federally enforceable limitations to avoid Title V, NSR, & MACT)	PE shall not exceed 0.54 tons per rolling, 12-month period. VOC emissions shall not exceed 33.0 tons per rolling, 12-month period.SO_2 emissions shall not exceed 2.37 tons per rolling, 12-month period. HCL emissions shall not exceed 4.12 tons per rolling, 12-month period. See 2. through 5. of Section B – Facility-Wide

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		Terms and Conditions and b)(2)a. through b)(2)c.

(2) Additional Terms and Conditions

a. The thermal incinerator controlling VOC emissions from the emissions units shall operate with a minimum control efficiency of 95%, by weight, for VOC emissions.

b. The scrubber controlling the PE, SO_2 and HCl emissions from the emissions units shall operate with a minimum control efficiency of 95%, by weight.

c. The maximum production rate for each emissions unit, P028 and P036, shall not exceed 600 pounds of carbon per hour.

c) Operational Restrictions

(1) The annual carbon throughput for this emissions unit shall not exceed 2,628 tons per year.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain daily records of the following:

a. amount of carbon treated in this emission unit, in pounds;

b. the number of hours this emission unit operates, and

c. the average hourly amount of carbon treated in this emission unit.

(2) The permittee shall maintain monthly records of the following information:

a. the average hourly PE, NO_X, CO, HCl, VOC, and SO_2 emissions from the scrubber stack, as demonstrated during the most recent emissions test, in pounds per hour;

b. the total number of hours the emissions units operated;

c. the total PE, NO_X, CO, HCl, VOC, and SO_2 emissions from the scrubber stack, in pounds;

d. the total amount of natural gas combusted in the indirect-fired kilns (the permittee may assume the worst-case potential monthly natural gas usage rate in lieu of maintaining actual usage records);

e. the total PE, NO_X, CO, VOC, HCland SO_2 emissions from the combustion of natural gas in the indirect-fired kilns;

f. the total monthly PE, NO_X, CO, HCl, VOC, and SO_2 emissions (i.e., c. + e.);

g. the total (year-to-date) annual emissions of NO_X, HCl and CO, in tons;

h. the rolling, 12-month summations of PE, VOC, HCl, and SO_2 emissions, in tons; and

i. the rolling, 12-month summations of annual carbon throughput.

(3) The permittee shall properly operate and maintain equipment to monitor the water flow rate through the scrubber while the emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information each day:

a. the average water flow rate through the scrubber, in gallons per minute, for all 3-hour blocks of time that the emissions unit was operated; and

b. the downtime for the control device and monitoring equipment when the associated emissions unit was in operation.

The average water flow rate through the scrubber, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 50 gallons per minute.

(4) The permittee shall properly operate and maintain equipment to monitor the pressure drop across the scrubber while the emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information each day:

a. the average pressure drop across the scrubber, in inches of water, for all 3-hour blocks of time that the emissions unit was operated; and

b. the downtime for the control device, monitoring equipment when the associated emissions unit was in operation.

The average pressure drop across the scrubber, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 15 inches of water.

(5) The permittee shall properly operate and maintain equipment to monitor the pH of the scrubber's liquor while the emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information each day:

a. the average pH of the scrubber's liquor, for all 3-hour blocks of time that the emissions unit was operated; and

b. the downtime for the control device and monitoring equipment when the associated emissions unit was in operation.

The average pH of the scrubber's liquor, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 6.5.

(6) 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, flow rate, and pH 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, liquid flow rate, and pH are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by Ohio EPA, Central District Office. The permittee may request revisions to the permitted range or limit for the pressure drop, liquid flow rate, or pH based upon information obtained during future performance tests that demonstrate

compliance with the allowable PE, SO2, VOC, and HCL emission rates 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.

(7) The permittee shall operate and maintain a continuous temperature monitor and recorder that measures and records the combustion temperature within the thermal incinerator when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

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

(8) Whenever the monitored average combustion temperature within the thermal oxidizer deviates from the range or limit 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/limit 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 temperature 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.

The temperature range/limit is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by Ohio EPA, Central District Office. The permittee may request revisions to the permitted temperature range/limit based upon information obtained during future performance tests that demonstrate compliance with the allowable emission rate(s) for the controlled pollutant(s). In addition, approved revisions to the temperature range/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.

(9) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emissions incident; and

e. any corrective actions taken to eliminate the visible emissions.

If visible emissions are present, a visible emissions incident has occurred. The observer does not have to document the exact start and end times for the visible emissions incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emissions incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

(10) The permit application for emissions units, P028 and P036, were evaluated based on the theoretical worst case feed material and the design parameters of the emissions units' exhaust systems, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application (PTI 01-08619, issued 7/18/2002); and modeling was performed for the toxic air contaminant(s) using SCREEN3, an Ohio EPA approved model. The predicted 1-hour

maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):

   i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or

   ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.

b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).

c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "24" hours per day and "40" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

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

d. The following summarizes the results of dispersion modeling for the significant toxic contaminants as listed in the permit application:

   i. Toxic Contaminant: Benzene

      TLV (ug/m3):1,600
      Maximum Hourly Emission Rate (lb/hr): 0.82
      Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 10.46
      MAGLC (ug/m3): 38:

   ii. Toxic Contaminant: Ethylbenzene

      TLV (ug/m3): 434
      Maximum Hourly Emission Rate (lbs/hr): 0.72
      Predicted 1-Hour Maximum Ground-Level
      Concentration (ug/m3): 9.52

MAGLC (ug/m3): 10,333

iii. Pollutant: Toluene

TLV (ug/m3): 188
Maximum Hourly Emission Rate (lbs/hr): 1.03
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 13.59
MAGLC (ug/m3):4476

iv. Pollutant: Xylene

TLV (ug/m3): 434
Maximum Hourly Emission Rate (lb/hr): 1.24
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 16.31
MAGLC (ug/m3): 10,333

v. Pollutant: Chloroform

TLV (ug/m3): 49
Maximum Hourly Emission Rate (lbs/hr): 1.7
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 21.96
MAGLC (ug/m3): 1,167

vi. Pollutant: HCl

TLV (ug/m3): 7.5 (STEL)
Maximum Hourly Emission Rate (lbs/hr): 0.94
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 12.55
MAGLC (ug/m3): 131.61

The permittee, has demonstrated that emissions of Benzene, Ethylbenzene, Toluene, Xylene, Chloroform, and HCl, from emissions units P028 and P036, are calculated to be less than eighty per cent of the maximum acceptable ground level concentrations (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the “Toxic Air Contaminant Statute”, ORC 3704.03(F).

(11) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:

a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and

c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final permit prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

(12) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):

a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);

b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);

c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and

d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

e) Reporting Requirements

(1) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the District Office or Local Air Agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services.

(2) The permittee shall submit an annual Permit Evaluation Report (PER) to Ohio EPA. The PER must be submitted by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.

(3) The permittee shall identify the following information in the annual PER in accordance with the monitoring requirements in section d) above:

a. all days during which any visible particulate emissions were observed from the stack serving this emissions unit;

b. any corrective actions taken to minimize or eliminate the visible particulate emissions;

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

d. 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;

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

f. each incident of deviation described in “c” or “d” 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

g. each incident of deviation described in "c" or "d" 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.

h. each period of time (start time and date, and end time and date) when the average combustion temperature within the thermal incinerator was outside of the acceptable range;

i. 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 thermal incinerator;

j. each incident of deviation described in "h" or "i" (above) where a prompt investigation was not conducted;

k. each incident of deviation described in "h" or "i" where prompt corrective action, that would bring the emissions unit(s) into compliance and/or the temperature within the thermal incinerator into compliance with the acceptable range, was determined to be necessary and was not taken; and

l. each incident of deviation described in "h" or "i" 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.

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

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

a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:

i. 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;

ii. 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 thermal incinerator;

iii. all 3-hour periods of time during which the average water flow rate through the scrubber was not maintained at or above the required level;

iv. all 3-hour periods of time during which the average pressure drop across the scrubber was not maintained at or above the required level;

v. all 3-hour periods of time during which the average pH of the scrubber's liquor was not maintained at or above the required level;

vi. all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emission tests that demonstrated that the emissions unit was in compliance;

vii. all exceedances of the rolling, 12-month PE, VOC, HCl and SO_2 emissions limitations; and

viii. all exceedances of the maximum hourly production limitation.

b. the probable cause of each deviation (excursion);

c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and

d. the magnitude and duration of each deviation (excursion).

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

The quarterly reports shall be submitted, 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 (Ohio EPA, Central District Office).

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. <u>Emission Limitations:</u>

PE shall not exceed 0.12 pound per hour and 0.54 TPY.

PE shall not exceed 0.54 tons per rolling, 12-month period.

<u>Applicable Compliance Method:</u>

The hourly PE limitation was established by summing the emissions from the scrubber stack (based on historical stack test data) with the emissions from the combustion of natural gas in the indirect-fired kiln. Compliance shall be determined by summing the average hourly PE emissions observed during the

most recent emissions test with the maximum hourly PE from the combustion of natural gas in the indirect-fired kiln.

Compliance with the annual and rolling, 12-month emissions limitations shall be determined through the recordkeeping specified in d) above.

b. Emission Limitations:

NO_X emissions shall not exceed 1.52 pounds per hour and 6.6 TPY.

Applicable Compliance Method:

The hourly NO_X limitation was established by summing the emissions from the scrubber stack (based on historical stack test data) with the emissions from the combustion of natural gas in the indirect-fired kiln. Compliance shall be determined by summing the average hourly NO_X emissions observed during the most recent emissions test with the maximum hourly NO_X emissions from the combustion of natural gas in the indirect-fired kiln.

Compliance with the annual emissions limitation shall be determined through the recordkeeping specified in d)(1) above.

c. Emission Limitations:

CO emissions shall not exceed 0.58 pound per hour and 2.53 TPY.

Applicable Compliance Method:

The hourly CO limitation was established by summing the emissions from the scrubber stack (based on historical stack test data) with the emissions from the combustion of natural gas in the indirect-fired kiln. Compliance shall be determined by summing the average hourly CO emissions observed during the most recent emissions test with the maximum hourly CO emissions from the combustion of natural gas in the indirect-fired kiln.

Compliance with the annual emissions limitation shall be determined through the recordkeeping specified in d) above.

d. Emission Limitations:

HCl emissions shall not exceed 0.94 pound per hour and 4.12 TPY.

Applicable Compliance Method:

Compliance with the hourly HCl limitation shall be determined through emissions testing performed in accordance with 40 CFR Part 60, Appendix A, Method 26A as specified in f)(2) below.

Compliance with the annual emissions limitation shall be determined through the recordkeeping specified in d) above.

e. Emission Limitations:

VOC emissions shall not exceed 7.53 pounds per hour and 33.0 TPY.

VOC emissions shall not exceed 33.0 tons per rolling, 12-month period.

Applicable Compliance Method:

The hourly VOC limitation was established by summing the emissions from the scrubber stack (based on historical stack test data) with the emissions from the combustion of natural gas in the indirect-fired kiln. Compliance shall be determined by summing the average hourly VOC emissions observed during the most recent emissions test with the maximum hourly VOC from the combustion of natural gas in the indirect-fired kiln.

Compliance with the annual and rolling, 12-month emissions limitations shall be determined through the recordkeeping specified in d)(2) above.

f. Emission Limitation:

The thermal incinerator controlling VOC emissions from this emissions unit shall operate with a minimum control efficiency of 95%, by weight, for VOC emissions.

Applicable Compliance Method

The control efficiency cannot be determined due to the inlet not meeting U.S. EPA Method 1 Sample Location requirements, therefore until such time as a redesign occurs, compliance with the applicable term and condition shall be based upon the parametric monitoring recordkeeping specified in d) above.

g. Emission Limitation:

The scrubber controlling the PE, SO_2 and HCl emissions from this emissions unit shall operate with a minimum control efficiency of 95%, by weight.

Applicable Compliance Method:

The control efficiency cannot be determined due to the inlet not meeting U.S. EPA Method 1 Sample Location requirements, therefore, until such time as a redesign occurs, compliance with the applicable term and condition shall be based upon the parametric monitoring recordkeeping specified in d) above.

h. Emission Limitations:

SO_2 emissions shall not exceed 0.54 pound per hour and 2.37 TPY.

SO_2 emissions shall not exceed 2.37 tons per rolling, 12-month period.

Applicable Compliance Method:

The hourly SO_2 limitation was established by summing the emissions from the scrubber stack (based on historical stack test data) with the emissions from the combustion of natural gas in the indirect-fired kiln. Compliance shall be determined by summing the average hourly SO_2 emissions observed during the most recent emissions test with the maximum hourly SO_2 from the combustion of natural gas in the indirect-fired kiln.

Compliance with the annual and rolling, 12-month emissions limitations shall be determined through the recordkeeping specified in d) above.

i. Emission Limitation:

Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:

If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

j. Emission Limitations:

Barium emissions shall not exceed 0.001 pound per hour and 0.004 TPY.

Zinc emissions shall not exceed 0.0009 pound per hour and 0.004 TPY.

Copper emissions shall not exceed 0.0008 pound per hour and 0.004 TPY.

Cadmium emissions shall not exceed 0.002 pound per hour and 0.009 TPY.

Lead emissions shall not exceed 0.0002 pound per hour and 0.0007 TPY.

Arsenic emissions shall not exceed 0.0005 pound per hour and 0.002 TPY.

Applicable Compliance Method:

If required, compliance shall be demonstrated through emissions tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, and 29.

The annual emission limitation was established by multiplying the hourly emission limitation by 8,760 hr/yr and dividing by 2,000 lb/ton. Therefore, compliance with the annual emission limitation is ensured if compliance is maintained with the hourly emission limitation.

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

a. The emissions testing shall be conducted within 6 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the hourly emission limitations for PE, SO_2, NO_X, CO, VOC and HCl as specified in f)(1) above.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates:

PE, Methods 1 through 5 of 40 CFR Part 60, Appendix A

SO_2, Methods 1 through 4 and 6, 6A, and/or 6C, as applicable, of 40 CFR Part 60, Appendix A

NO_X, Methods 1 through 4 and 7e of 40 CFR Part 60, Appendix A

CO, Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A

VOC, Methods 1 through 4 and 18, 25, and/or 25A, as applicable, of 40 CFR Part 60, Appendix A

HCl, Methods 1 through 4 and 26 and/or 26A, as applicable, of 40 CFR Part 60, Appendix A

Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA, Central District Office.

d. The test(s) shall be conducted under those representative conditions that challenge to the fullest extent possible a facility's ability to meet the applicable emissions limits and/or control requirements, unless otherwise specified or approved by Ohio EPA, Central District Office, Division of Air Pollution Control. Although this generally consists of operating the emissions unit at its maximum material input/production rates and results in the highest emission rate of the tested pollutant, there may be circumstances where a lower emissions loading is deemed the most challenging control scenario. Failure to test under these conditions is justification for not accepting the test results as a demonstration of compliance.

e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to Ohio EPA, Central District Office, Division of Air Pollution Control. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in Ohio EPA District Office's refusal to accept the results of the emission test(s).

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

g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to Ohio EPA, Central District Office, Division of Air Pollution Control within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from Ohio EPA, Central District Office, Division of Air Pollution Control.

g) Miscellaneous Requirements

(1) None.