



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

6/17/2013

Certified Mail

Facility ID: 0125040716
Permit Number: P0082743
County: Franklin

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

RE: FINAL AIR POLLUTION CONTROL TITLE V PERMIT
Permit Type: Renewal

Dear Permit Holder:

Enclosed is a final Ohio Environmental Protection Agency (EPA) Air Pollution Title V permit that allows you to operate the facility in the manner indicated in the permit. Because this permit may contain several conditions and restrictions, we urge you to read it carefully. In this letter you will find the information on the following topics:

- **How to appeal this permit**
- **How to save money, reduce pollution and reduce energy consumption**
- **How to give us feedback on your permitting experience**
- **How to get an electronic copy of your permit**

How to appeal this permit

The issuance of this Title V permit is a final action of the Director and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00, made payable to "Ohio Treasurer Josh Mandel," which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
77 South High Street, 17th Floor
Columbus, OH 43215

How to save money, reduce pollution and reduce energy consumption

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. Additionally, all or a portion of the capital expenditures related to installing air pollution control equipment under this permit may be eligible for financing and State tax exemptions through the Ohio Air Quality Development Authority (OAQDA) under Ohio Revised Code Section 3706. For more information, see the OAQDA website: www.ohioairquality.org/clean_air

How to give us feedback on your permitting experience

Please complete a survey at www.epa.ohio.gov/dapc/permitsurvey.aspx and give us feedback on your permitting experience. We value your opinion.

How to get an electronic copy of your permit

This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

If you have any questions regarding this permit, please contact the Ohio EPA DAPC, Central District Office as indicated on page one of your permit.

Sincerely,



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

Cc: U.S. EPA Region 5 *Via E-Mail Notification*
Ohio EPA DAPC, Central District Office



FINAL

**Division of Air Pollution Control
Title V Permit
for
Calgon Carbon Corp.**

Facility ID:	0125040716
Permit Number:	P0082743
Permit Type:	Renewal
Issued:	6/17/2013
Effective:	7/8/2013
Expiration:	7/8/2018



Division of Air Pollution Control
Title V Permit
for
Calgon Carbon Corp.

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Final Title V Permit
Calgon Carbon Corp.
Permit Number: P0082743
Facility ID: 0125040716
Effective Date: 7/8/2013

Authorization

Facility ID: 0125040716
Facility Description: Industrial inorganic chemicals nec
Application Number(s): A0013086
Permit Number: P0082743
Permit Description: Renewal Title V Permit to Operate for activated carbon regeneration. Permit includes kilns and shaker.
Permit Type: Renewal
Issue Date: 6/17/2013
Effective Date: 7/8/2013
Expiration Date: 7/8/2018
Superseded Permit Number: P0082742

This document constitutes issuance of an OAC Chapter 3745-77 Title V permit to:

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

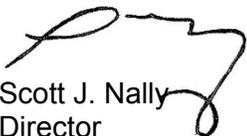
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

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 a Title V permit pursuant to Chapter 3745-77 of the Ohio Administrative Code. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above. You will be sent a notice approximately 18 months prior to the expiration date regarding the renewal of this permit. If you do not receive a notice, please contact the Ohio EPA DAPC, Central District Office. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-08(E) and in accordance with the terms of this permit beyond the expiration date, if a timely renewal application is submitted. A renewal application will be considered timely if it is submitted no earlier than 18 months (540 days) and no later than 6 months (180 days) prior to the expiration date.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency


Scott J. Nally
Director



Final Title V Permit
Calgon Carbon Corp.
Permit Number: P0082743
Facility ID: 0125040716
Effective Date: 7/8/2013

A. Standard Terms and Conditions



1. Federally Enforceable Standard Terms and Conditions

- a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:
- (1) Standard Term and Condition A. 24., Reporting Requirements Related to Monitoring and Record Keeping Requirements of State-Only Enforceable Permit Terms and Conditions
 - (2) Standard Term and Condition A. 25., Records Retention Requirements for State-Only Enforceable Permit Terms and Conditions
 - (3) Standard Term and Condition A. 27., Scheduled Maintenance/Malfunction Reporting
 - (4) Standard Term and Condition A. 29., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

(Authority for term: ORC 3704.036(A))

2. Monitoring and Related Record Keeping and Reporting Requirements

- a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit (i.e., in section C. Emissions Unit Terms and Conditions of this Title V permit), the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
- (1) The date, place (as defined in the permit), and time of sampling or measurements.
 - (2) The date(s) analyses were performed.
 - (3) The company or entity that performed the analyses.
 - (4) The analytical techniques or methods used.
 - (5) The results of such analyses.
 - (6) The operating conditions existing at the time of sampling or measurement.

(Authority for term: OAC rule 3745-77-07(A)(3)(b)(i))

- b) Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

(Authority for term: OAC rule 3745-77-07(A)(3)(b)(ii))



c) The permittee shall submit required reports in the following manner:

- (1) All reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations caused by malfunctions shall be submitted in the following manner:

Any malfunction, as defined in OAC rule 3745-15-06(B)(1), shall be promptly reported to the Ohio EPA in accordance with OAC rule 3745-15-06. In addition, to fulfill the OAC rule 3745-77-07(A)(3)(c) deviation reporting requirements for malfunctions, written reports that identify each malfunction that occurred during each calendar quarter (including each malfunction reported only verbally in accordance with OAC rule 3745-15-06) shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year in accordance with Standard Term and Condition A.2.c)(2) below; and each report shall cover the previous calendar quarter. An exceedance of the visible emission limitations specified in OAC rule 3745-17-07(A)(1) that is caused by a malfunction is not a violation and does not need to be reported as a deviation if the owner or operator of the affected air contaminant source or air pollution control equipment complies with the requirements of OAC rule 3745-17-07(A)(3)(c).

In accordance with OAC rule 3745-15-06, a malfunction reportable under OAC rule 3745-15-06(B) is a deviation of the federally enforceable permit requirements. Even though verbal notifications and written reports are required for malfunctions pursuant to OAC rule 3745-15-06, the written reports required pursuant to this term must be submitted quarterly to satisfy the prompt reporting provision of OAC rule 3745-77-07(A)(3)(c).

In identifying each deviation caused by a malfunction, the permittee shall specify the emission limitation(s) (or control requirement(s)) for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. For a specific malfunction, if this information has been provided in a written report that was submitted in accordance with OAC rule 3745-15-06, the permittee may simply reference that written report to identify the deviation. Nevertheless, all malfunctions, including those reported only verbally in accordance with OAC rule 3745-15-06, must be reported in writing on a quarterly basis.

Any scheduled maintenance, as referenced in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described above for malfunctions.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

- (2) Except as may otherwise be provided in the terms and conditions for a specific emissions unit (i.e., in section C. Emissions Unit Terms and Conditions of this Title V permit or, in some cases, in section B. Facility-Wide Terms and Conditions of this Title V permit), all reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations of the emission limitations, operational restrictions, and control device operating parameter limitations shall be submitted in the following manner:

Written reports of (a) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, (b) the probable cause of such deviations, and (c) any corrective actions or preventive



measures taken, shall be promptly made to the appropriate Ohio EPA District Office or local air agency. Except as provided below, the written reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

In identifying each deviation, the permittee shall specify the emission limitation(s), operational restriction(s), and/or control device operating parameter limitation(s) for which the deviation occurred, describe each deviation, and provide the estimated magnitude and duration of each deviation.

These written deviation reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations. Full compliance with OAC rule 3745-77-07(A)(3)(c) requires reporting of all other deviations of the federally enforceable requirements specified in the permit as required by such rule.

If an emissions unit has a deviation reporting requirement for a specific emission limitation, operational restriction, or control device operating parameter limitation that is not on a quarterly basis (e.g., within 30 days following the end of the calendar month, or within 30 or 45 days after the exceedance occurs), that deviation reporting requirement satisfies the reporting requirements specified in this Standard Term and Condition for that specific emission limitation, operational restriction, or control device parameter limitation. Following the provisions of that non-quarterly deviation reporting requirement will also satisfy (for the deviations so reported) the requirements of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations, and additional quarterly deviation reports for that specific emission limitation, operational restriction, or control device parameter limitation are not required pursuant to this Standard Term and Condition.

See A.29 below if no deviations occurred during the quarter.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

- (3) All reporting required in accordance with the OAC rule 3745-77-07(A)(3)(c) for other deviations of the federally enforceable permit requirements which are not reported in accordance with Standard Term and Condition A.2)c)(2) above shall be submitted in the following manner:

Unless otherwise specified by rule, written reports that identify deviations of the following federally enforceable requirements contained in this permit; Standard Terms and Conditions: A.3, A.4, A.5, A.7.e), A.8, A.13, A.15, A.19, A.20, A.21, and A.23 of this Title V permit, as well as any deviations from the requirements in section C. Emissions Unit Terms and Conditions of this Title V permit, and any monitoring, record keeping, and reporting requirements, which are not reported in accordance with Standard Term and Condition A.2.c)(2) above shall be submitted (i.e., postmarked) to the appropriate Ohio EPA District Office or local air agency by January 31 and July 31 of each year; and each report shall cover the previous six calendar months. Unless otherwise specified by rule, all other deviations from federally enforceable requirements identified in this permit shall be submitted annually as part of the annual compliance certification, including deviations of federally enforceable requirements not specifically addressed by permit or rule for the



insignificant activities or emissions levels (IEU) identified in section B. Facility-Wide Terms and Conditions of this Title V permit. Annual reporting of deviations is deemed adequate to meet the deviation reporting requirements for IEUs unless otherwise specified by permit or rule.

In identifying each deviation, the permittee shall specify the federally enforceable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation.

These semi-annual and annual written reports shall satisfy the reporting requirements of OAC rule 3745-77-07(A)(3)(c) for any deviations from the federally enforceable requirements contained in this permit that are not reported in accordance with Standard Term and Condition A.2.c)(2) above.

If no such deviations occurred during a six-month period, the permittee shall submit a semi-annual report which states that no such deviations occurred during that period.

(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i) and (ii) and OAC rule 3745-77-07(A)(13)(b))

- (4) Each written report shall be signed by a responsible official certifying that, "based on information and belief formed after reasonable inquiry, the statements and information in the report (including any written malfunction reports required by OAC rule 3745-15-06 that are referenced in the deviation reports) are true, accurate, and complete."

(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iv))

- (5) Reports of any required monitoring and/or record keeping information shall be submitted to Ohio EPA DAPC, Central District Office.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

3. Scheduled Maintenance

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. Except as provided in OAC rule 3745-15-06(A)(3), any scheduled maintenance necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s). Any scheduled maintenance, as defined in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described for malfunctions in Standard Term and Condition A.2.c)(1) above.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

4. Risk Management Plans

If applicable, the permittee shall develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq. ("Act"); and, pursuant to 40 C.F.R. 68.215(a), the permittee shall submit either of the following:



- a) a compliance plan for meeting the requirements of 40 C.F.R. Part 68 by the date specified in 40 C.F.R. 68.10(a) and OAC 3745-104-05(A); or
- b) as part of the compliance certification submitted under 40 C.F.R. 70.6(c)(5), a certification statement that the source is in compliance with all requirements of 40 C.F.R. Part 68 and OAC Chapter 3745-104, including the registration and submission of the risk management plan.

(Authority for term: OAC rule 3745-77-07(A)(4))

5. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

(Authority for term: OAC rule 3745-77-07(A)(5))

6. Severability Clause

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

(Authority for term: OAC rule 3745-77-07(A)(6))

7. General Requirements

- a) The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.
- b) It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c) This permit may be modified, reopened, revoked, or revoked and reissued, for cause, in accordance with Standard Term and Condition A.11 below. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d) This permit does not convey any property rights of any sort, or any exclusive privilege.
- e) The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the



Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

- f) Except as otherwise indicated below, this Title V permit, or permit modification, is effective for five years from the original effective date specified in the permit. In the event that this facility becomes eligible for non-title V permits, this permit shall cease to be enforceable when:
- (1) the permittee submits an approved facility-wide potential to emit analysis supporting a claim that the facility no longer meets the definition of a "major source" as defined in OAC rule 3745-77-01(W) based on the permanent shutdown and removal of one or more emissions units identified in this permit; or
 - (2) the permittee no longer meets the definition of a "major source" as defined in OAC rule 3745-77-01(W) based on obtaining restrictions on the facility-wide potential(s) to emit that are federally enforceable or legally and practically enforceable ; or
 - (3) a combination of (1) and (2) above.

The permittee shall continue to comply with all applicable OAC Chapter 3745-31 requirements for all regulated air contaminant sources once this permit ceases to be enforceable. The permittee shall comply with any residual requirements, such as quarterly deviation reports, semi-annual deviation reports, and annual compliance certifications covering the period during which this Title V permit was enforceable. All records relating to this permit must be maintained in accordance with law.

(Authority for term: OAC rule 3745-77-01(W), OAC rule 3745-77-07(A)(3)(b)(ii), OAC rule 3745-77(A)(7))

8. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78.

(Authority for term: OAC rule 3745-77-07(A)(8))

9. Marketable Permit Programs

No revision of this permit is required under any approved economic incentive, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in this permit.

(Authority for term: OAC rule 3745-77-07(A)(9))

10. Reasonably Anticipated Operating Scenarios

The permittee is hereby authorized to make changes among operating scenarios authorized in this permit without notice to the Ohio EPA, but, contemporaneous with making a change from one operating scenario to another, the permittee must record in a log at the permitted facility the scenario under which the permittee is operating. The permit shield provided in these standard terms and conditions shall apply to all operating scenarios authorized in this permit.



(Authority for term: OAC rule 3745-77-07(A)(10))

11. Reopening for Cause

This Title V permit will be reopened prior to its expiration date under the following conditions:

- a) Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.
- b) This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit, and shall not require a reopening of this permit.
- c) The Director of the Ohio EPA or the Administrator of the U.S. EPA determines that the federally applicable requirements in this permit are based on a material mistake, or that inaccurate statements were made in establishing the emissions standards or other terms and conditions of this permit related to such federally applicable requirements.
- d) The Administrator of the U.S. EPA or the Director of the Ohio EPA determines that this permit must be revised or revoked to assure compliance with the applicable requirements.

(Authority for term: OAC rules 3745-77-07(A)(12) and 3745-77-08(D))

12. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

(Authority for term: OAC rule 3745-77-07(B))

13. Compliance Requirements

- a) Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- b) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
 - (1) At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.



- (2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with paragraph (E) of OAC rule 3745-77-03.
 - (3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - (4) As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c) The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
- (1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - (2) An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.
- d) Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) and the Administrator of the U.S. EPA in the following manner and with the following content:
- (1) Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted (i.e., postmarked) on or before April 30th of each year during the permit term.
 - (2) Compliance certifications shall include the following:
 - a. An identification of each term or condition of this permit that is the basis of the certification.
 - b. The permittee's current compliance status.
 - c. Whether compliance was continuous or intermittent.
 - d. The method(s) used for determining the compliance status of the source currently and over the required reporting period.
 - e. Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.
 - (3) Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.



(Authority for term: OAC rules 3745-77-07(C)(1),(2),(4) and (5) and ORC section 3704.03(L))

14. Permit Shield

- a) Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC rule 3745-77-07) shall be deemed compliance with the applicable requirements identified and addressed in this permit as of the date of permit issuance.
- b) This permit shield provision shall apply to any requirement identified in this permit pursuant to OAC rule 3745-77-07(F)(2), as a requirement that does not apply to the source or to one or more emissions units within the source.

(Authority for term: OAC rule 3745-77-07(F))

15. Operational Flexibility

The permittee is authorized to make the changes identified in OAC rule 3745-77-07(H)(1)(a) to (H)(1)(c) within the permitted stationary source without obtaining a permit revision, if such change is not a modification under any provision of Title I of the Act [as defined in OAC rule 3745-77-01(JJ)], and does not result in an exceedance of the emissions allowed under this permit (whether expressed therein as a rate of emissions or in terms of total emissions), and the permittee provides the Administrator of the U.S. EPA and the appropriate Ohio EPA District Office or local air agency with written notification within a minimum of seven days in advance of the proposed changes, unless the change is associated with, or in response to, emergency conditions. If less than seven days notice is provided because of a need to respond more quickly to such emergency conditions, the permittee shall provide notice to the Administrator of the U.S. EPA and the appropriate District Office of the Ohio EPA or local air agency as soon as possible after learning of the need to make the change. The notification shall contain the items required under OAC rule 3745-77-07(H)(2)(d).

(Authority for term: OAC rules 3745-77-07(H)(1) and (2))

16. Emergencies

The permittee shall have an affirmative defense of emergency to an action brought for noncompliance with technology-based emission limitations if the conditions of OAC rule 3745-77-07(G)(3) are met. This emergency defense provision is in addition to any emergency or upset provision contained in any applicable requirement.

(Authority for term: OAC rule 3745-77-07(G))

17. Off-Permit Changes

The owner or operator of a Title V source may make any change in its operations or emissions at the source that is not specifically addressed or prohibited in the Title V permit, without obtaining an amendment or modification of the permit, provided that the following conditions are met:

- a) The change does not result in conditions that violate any applicable requirements or that violate any existing federally enforceable permit term or condition.



- b) The permittee provides contemporaneous written notice of the change to the Director and the Administrator of the U.S. EPA, except that no such notice shall be required for changes that qualify as insignificant emissions levels or activities as defined in OAC rule 3745-77-01(U). Such written notice shall describe each such change, the date of such change, any change in emissions or pollutants emitted, and any federally applicable requirement that would apply as a result of the change.
- c) The change shall not qualify for the permit shield under OAC rule 3745-77-07(F).
- d) The permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.
- e) The change is not subject to any applicable requirement under Title IV of the Act or is not a modification under any provision of Title I of the Act.

Paragraph (I) of rule 3745-77-07 of the Administrative Code applies only to modification or amendment of the permittee's Title V permit. The change made may require a permit-to-install under Chapter 3745-31 of the Administrative Code if the change constitutes a modification as defined in that Chapter. Nothing in paragraph (I) of rule 3745-77-07 of the Administrative Code shall affect any applicable obligation under Chapter 3745-31 of the Administrative Code.

(Authority for term: OAC rule 3745-77-07(I))

18. Compliance Method Requirements

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee, including but not limited to, any challenge to the Credible Evidence Rule (see 62 Fed. Reg. 8314, Feb. 24, 1997), in the context of any future proceeding.

(This term is provided for informational purposes only.)

19. Insignificant Activities or Emissions Levels

Each IEU that has one or more applicable requirements shall comply with those applicable requirements.

(Authority for term: OAC rule 3745-77-07(A)(1))

20. Permit to Install Requirement

Prior to the "installation" or "modification" of any "air contaminant source," as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.

(Authority for term: OAC rule 3745-77-07(A)(1))



21. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

(Authority for term: OAC rule 3745-77-07(A)(1))

22. Permanent Shutdown of an Emissions Unit

The permittee may notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification from the responsible official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the responsible official that the emissions unit was permanently shut down.

After the date on which an emissions unit is permanently shut down (i.e., that 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 and therefore ceases to meet the definition of an "emissions unit" as defined in OAC rule 3745-77-01(O)), rendering existing permit terms and conditions irrelevant, the permittee shall not be required, after the date of the certification and submission to Ohio EPA, to meet any Title V permit requirements applicable to that emissions unit, except for any residual requirements, such as the quarterly deviation reports, semi-annual deviation reports and annual compliance certification covering the period during which the emissions unit last operated. All records relating to the shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law.

No emissions unit certified by the responsible official as being permanently shut down may resume operation without first applying for and obtaining a permit to install pursuant to OAC Chapter 3745-31.

(Authority for term: OAC rule 3745-77-01)

23. Title VI Provisions

If applicable, the permittee shall comply with the standards for recycling and reducing emissions of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:

- a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices specified in 40 CFR 82.156.
- b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment specified in 40 CFR 82.158.
- c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

(Authority for term: OAC rule 3745-77-01(H)(11))



24. Reporting Requirements Related to Monitoring and Record Keeping Requirements Under State Law Only

The permittee shall submit required reports in the following manner:

- a) Reports of any required monitoring and/or record keeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (i) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and record keeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

25. Records Retention Requirements Under State Law Only

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

26. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

(Authority for term: OAC rule 3745-77-07(C))



27. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

28. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

(Authority for term: OAC rule 3745-77-01(C))

29. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

If no emission limitation (or control requirement), operational restriction and/or control device parameter limitation deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

The permittee is not required to submit a quarterly report which states that no deviations occurred during that quarter for the following situations:

- a) where an emissions unit has deviation reporting requirements for a specific emission limitation, operational restriction, or control device parameter limitation that override the deviation reporting requirements specified in Standard Term and Condition A.2.c)(2); or
- b) where an uncontrolled emissions unit has no monitoring, record keeping, or reporting requirements and the emissions unit's applicable emission limitations are established at the potentials to emit; or
- c) where the company's responsible official has certified that an emissions unit has been permanently shut down.



Final Title V Permit
Calgon Carbon Corp.
Permit Number: P0082743
Facility ID: 0125040716
Effective Date: 7/8/2013

B. Facility-Wide Terms and Conditions



1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:
 - a) None.
2. The following insignificant emission units at this facility must comply with all applicable State and federal regulations, as well as any emission limitations and/or control requirements contained within the identified permit to install for the emission unit. The insignificant emission units listed below are subject to one or more applicable requirements contained in a permit-to-install or in the SIP-approved versions of OAC Chapters 3745-17, 3745-18 and 3745-21
 - a) P045 - B-54 Sweco Screener controlled by a baghouse - PTI No. 01-08619
 - b) OP046 - Nauta Mixer/Sifter controlled by a baghouse - PTI No. 01-08619
3. Pursuant to 40 CFR Part 64, the permittee has submitted and Ohio EPA has approved a compliance assurance monitoring (CAM) plan for emissions unit P035 located at this facility. The permittee shall comply with the provisions of the plan during any operation of the aforementioned emissions units.

[Authority term: 40 CFR Part 64]



Final Title V Permit
Calgon Carbon Corp.
Permit Number: P0082743
Facility ID: 0125040716
Effective Date: 7/8/2013

C. Emissions Unit Terms and Conditions



1. P028, 20A Reactivation Kiln

Operations, Property and/or Equipment Description:

Carbon Regeneration Kiln Controlled by an afterburner followed by a scrubber

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) b)(1)d., d)(7) through d)(9), and e)(4).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI No. 01-08619, issued 7/18/2002)	Particulate emissions (PE) shall not exceed 0.12 pound per hour and 0.54 ton per year (TPY). Nitrogen oxides (NOx) emissions shall not exceed 1.52 pounds per hour and 6.66 TPY. Carbon monoxide (CO) emissions shall not exceed 0.58 pound per hour and 2.53 TPY. Volatile organic compound (VOC) emissions shall not exceed 7.53 pounds per hour and 33.0 TPY. Hydrochloric acid (HCl) emissions shall not exceed 0.94 pound per hour and 4.12 TPY. Sulfur dioxide (SO ₂) emissions shall not exceed 0.54 pound per hour and 2.37 TPY. 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.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>Copper emissions shall not exceed 0.0008 pound per hour and 0.004 TPY.</p> <p>Cadmium emissions shall not exceed 0.002 pound per hour and 0.009 TPY.</p> <p>Lead emissions shall not exceed 0.0002 pound per hour and 0.0007 TPY.</p> <p>Arsenic emissions shall not exceed 0.0005 pound per hour and 0.002 TPY.</p> <p>See b(2)a. and b(2)b.</p>
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)(7) through d)(9), and e)(4).

(2) Additional Terms and Conditions

- a. The thermal incinerator controlling VOC emissions from this emissions unit shall operate with a minimum control efficiency of 95%, by weight, for VOC emissions.
- b. The scrubber controlling the PE, SO₂ and HCl emissions from this emissions unit shall operate with a minimum control efficiency of 95%, by weight.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit-to-Install No. 01-08619, issued 7/18/2002:d)(6). The monitoring and record keeping requirements contained in the above-referenced Permit-to-Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.



[OAC rule 3745-77-07(A)(3)(a)(ii)]

- (2) 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.

- (3) 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.

- (4) 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.



- (5) 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.

- (6) 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.

- (7) The permit to install application for this emissions unit, P028, was evaluated based on the theoretical worst case feed material and the design parameters of the emissions unit's exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application (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 PTI 01-08619:
 - i. Toxic Contaminant: Benzene
TLV (ug/m3): 1,600
Maximum Hourly Emission Rate (lbs/hr): 0.82
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 10.46
MAGLC (ug/m3): 38TLV (ug/m3):
 - 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 (lbs/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 unit P028, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

- (8) 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 PTI 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.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

- (9) 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.



[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

e) Reporting Requirements

- (1) Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit-to-Install No. 01-08619, issued 7/18/2002: e)(3). The reporting requirements contained in the above-referenced Permit-to-Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit-to-Install.

[OAC rule 3745-77-07(A)(3)(a)(ii)]

- (2) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
- a. 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;
 - b. all 3-hour periods of time during which the average pressure drop across the scrubber was not maintained at or above the required level;
 - c. 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; and
 - d. 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.
- (3) The permittee shall submit semiannual written reports that identify:
- a. all days during which any visible particulate emissions were observed from the stack serving this emissions unit; and
 - b. any corrective actions taken to minimize or eliminate the visible particulate emissions.

These reports shall be submitted to the Director (Ohio EPA, Central District Office, DAPC) by January 31 and July 31 of each year and shall cover the previous 6-month period.

[OAC rule 3745-77-07(A)(3)(c)]

- (4) The permittee shall submit quarterly deviation reports, to the Ohio EPA, Central District Office, documenting any exceedance of the daily limitation on toxic air emissions or any deviation from a restriction on the process or hours of operation, as established by the Director in order to maintain any toxic air contaminant below its MAGLC. The permittee shall also report any changes made, during the calendar quarter, to a parameter or value entered into the dispersion model that demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F). These quarterly reports shall be submitted by



April 30, July 31, October 31, and January 31, and shall cover the records for the previous calendar quarters.

- (5) The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

f) Testing Requirements

- (1) Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit-to-Install No. 01-08619, issued 7/18/2002: f)(4)d. The testing requirements contained in the above-referenced Permit-to-Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit-to-Install.

[OAC rule 3745-77-07(A)(3)(a)(ii)]

- (2) Compliance with the emission limitations specified in sections b)(1) and b)(2) shall be determined in accordance with the following methods:

a. Emission Limitations:

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

Applicable Compliance Method:

Compliance shall be demonstrated through emissions tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 5, and as specified in term f)(3) below. The results of the emissions test shall be reported in terms of pounds per hour.

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

b. Emission Limitations:

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

Applicable Compliance Method:

Compliance shall be demonstrated through emissions tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, and 7e and as specified in term f)(3) below. The results of the emissions test shall be reported in terms of pounds per hour.

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



c. Emission Limitations:

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

Applicable Compliance Method:

Compliance shall be demonstrated through emissions tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, and 10 and as specified in term f)(3) below. The results of the emissions test shall be reported in terms of pounds per hour.

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

d. Emission Limitations:

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

Applicable Compliance Method:

Compliance shall be demonstrated through emissions tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, and 26a and as specified in term f)(3) below. The results of the emissions test shall be reported in terms of pounds per hour.

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

e. Emission Limitations:

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

Applicable Compliance Method:

Compliance shall be demonstrated through emissions tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, 25 or 18 and/or 25a, and as specified in term f)(3) below. The results of the emissions test shall be reported in terms of pounds per hour.

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

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



- a. The emission testing shall be conducted approximately 2.5 years after permit issuance.
- b. The emission testing shall be conducted to demonstrate compliance with the hourly emission limitations for PE, HCl, NOx, CO, and VOC as specified in f)(2)a. through f)(2)e. above.

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

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

Method 5	40 <u>CFR</u> Part 60, Appendix A, and/or;
Method 6	40 <u>CFR</u> Part 60, Appendix A, and/or;
Method 6c	40 <u>CFR</u> Part 60, Appendix A, and/or;
Method 7e	40 <u>CFR</u> Part 60, Appendix A, and/or;
Method 10	40 <u>CFR</u> Part 60, Appendix A, and/or;
Method 18	40 <u>CFR</u> Part 60, Appendix A, and/or;
Method 25	40 <u>CFR</u> Part 60, Appendix A, and/or;
Method 25a	40 <u>CFR</u> Part 60, Appendix A, and/or;
Method 26a	40 <u>CFR</u> Part 60, Appendix A, and/or;
Method 29	40 <u>CFR</u> Part 60, Appendix A, and/or;

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

- 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 the 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 the 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 the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
- f. Personnel from the 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



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

d. 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).

e. Emission Limitations:

- i. Barium emissions shall not exceed 0.001 pound per hour and 0.004 TPY.
- ii. Zinc emissions shall not exceed 0.0009 pound per hour and 0.004 TPY.
- iii. Copper emissions shall not exceed 0.0008 pound per hour and 0.004 TPY.
- iv. Cadmium emissions shall not exceed 0.002 pound per hour and 0.009 TPY.
- v. Lead emissions shall not exceed 0.0002 pound per hour and 0.0007 TPY.
- vi. 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 and as specified in term f)(3) above.

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

g) Miscellaneous Requirements

- (1) None.



2. P035, 79 Reactivation Kiln

Operations, Property and/or Equipment Description:

Carbon Regeneration Kiln Controlled by an afterburner followed by a scrubber

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) d)(7)

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) as effective 11/30/2001	Particulate emissions from the stack serving this emissions units shall not exceed 0.46lb/hr and 2.00 TPY Sulfur dioxide (SO ₂) Emissions from the stack serving this emission unit shall not exceed 2.1 lb/hr and 9.2 TPY Volatile organic compound (VOC) emissions shall not exceed 1.0 pounds per hour and 4.3 TPY. See b)(2)a.
b.	OAC rule 3745-31-05(A)(3) as effective 12/01/2006	See b)(2)b.
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.	40 CFR part 64 Compliance Assurance Monitoring (CAM)	See d)(1), d)(2), d)(3), d)(8), e)(1), f)(1) and f)(2) below.



(2) Additional Terms and Conditions

- a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to the Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 changes), such that BAT is no longer required by State regulations for National Ambient Air Quality Standards (NAAQS) pollutant(s) less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limitations/control measures no longer apply.

[OAC rule 3745-31-05(A)(3)¹, as effective 11/30/01]

- b. The Permit to Install for this air contaminant source takes into account the following voluntary restrictions (including the use of any applicable air pollution control equipment), as proposed by the permittee, for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3):
- i. This emission unit shall vent all emissions to an afterburner and scrubber at all time the emission unit is in operation.
 - ii. The afterburner controlling Organic Compound (OC) emissions from this emissions unit shall operate with a minimum control efficiency of 95%, by weight, for OC emissions; and
 - iii. The scrubber controlling the PE, SO₂ emissions from this emissions unit shall operate with the following minimum control efficiency of 95%, by weight, for PE, and SO₂.
 - iv. This emission unit shall meet the following emission limitations
 - (a) PE from the stack serving this emissions units shall not exceed 0.46lb/hr; and
 - (b) SO₂ Emissions from the stack serving this emission unit shall not exceed 2.1 lb/hr limitation; and
 - (c) VOC from the stack serving this emissions units shall not exceed 1.0 pounds per hour.

[OAC rule 3745-31-05(F)]

c) Operational Restrictions

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



d) Monitoring and/or Recordkeeping Requirements

- (1) 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.

- (2) 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.

- (3) 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.

- (4) 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.

- (5) 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.

- (6) The permittee shall maintain weekly records of the amount of carbon treated in this emission unit and the number of hours this emission unit operates.
- (7) 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.

[ORC 3704.03(F)(3)(c) and F(4)]

- (8) The CAM plan for this emissions unit has been developed for SO₂ emissions. The CAM performance indicators for the scrubber controlling this emissions unit are pressure drop, water flow rates, and pH which are based upon manufactures' performance specifications and the results of site-specific SO₂ emission testing, and scrubber parametric data collected during the emission testing. When the pressure drop, water flow rates, and pH of the scrubber are operating outside the indicator ranges, corrective action (including, but not limited to, an evaluation of the emissions unit and the control devices) will be required.

Upon detecting an excursion of any of the SO₂ emission indicator ranges listed above, the owner or operator shall restore operation of the emissions unit and/or its control equipment to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion. Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action, or any necessary follow-up actions to return operation to within the indicator range.

If a determination is made by the Administrator or Ohio EPA that the permittee has not used acceptable procedures in response to an excursion or exceedance based on the results of a determination made under 40 CFR Part 64.7(d)(2), the permittee may be required to develop a Quality Improvement Plan (QIP) consistent with the requirements of 40 CFR Part 64.8.

[Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR Part 64.3(a), 40 CFR Part 64.6(c), 40 CFR Part 64.7(d), and 40 CFR Part 64.8]

e) Reporting Requirements

- (1) The permittee shall submit quarterly reports that identify the following information concerning the operation of the wet scrubber during the operation of the controlled emissions unit(s):
- a. each period of time when the pressure drop across the scrubber, the liquid flow rate, and/or the liquid pH was/were outside of the appropriate range or exceeded the applicable limit contained in this permit;
 - b. an identification of each incident of deviation described in "a" (above) where a prompt investigation was not conducted;



- c. an identification of each incident of deviation described in "a" where prompt corrective action, that would bring the pressure drop, liquid flow rate, and/or scrubber liquid pH into compliance with the appropriate range or limit contained
- d. an identification of each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s).

These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

(2) The permittee shall submit quarterly reports that identify:

- a. all 3-hour blocks of time (when the emissions unit(s) was/were in operation) during which the average combustion temperature within the thermal oxidizer was more than 50 degrees Fahrenheit below the average temperature maintained during the most recent emissions test that demonstrated the emissions unit(s) was/were in compliance;
- b. any records of downtime (date and length of time) for the thermal oxidizer, or the monitoring equipment when the emissions unit(s) was/were in operation; and
- c. a log of the operating time for the thermal oxidizer, monitoring equipment, and the emissions unit(s).

These quarterly reports shall be submitted by April 30, July 31, October 31, and January 31, and shall cover the records for the previous calendar quarters.

(3) The permittee shall submit semiannual written reports that identify:

- a. all days during which any visible particulate emissions were observed from the stack serving this emissions unit; and
- b. any corrective actions taken to minimize or eliminate the visible particulate emissions.

These reports shall be submitted to the Director (Ohio EPA, Central District Office, DAPC) by January 31 and July 31 of each year and shall cover the previous 6-month period.

[OAC rule 3745-77-07(A)(3)(c)]

(4) The permittee shall notify Ohio EPA, Central District Office, DAPC in writing, of any weekly record showing any exceedances of the hourly production rate, as well as the corrective actions taken to achieve compliance. The notifications shall be submitted within 30 days after the exceedance occurs

f) Testing Requirements

(1) Compliance with the emission limitations and process rate restriction specified in sections b)(1), and b)(2), shall be determined in accordance with the following methods:



a. Emission Limitation

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

Applicable Compliance Method:

Compliance shall be demonstrated through emissions tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 5, and as specified in term f)(3) below. The results of the emissions test shall be reported in terms of pounds per hour.

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

b. Emission Limitation

SO₂ from this unit shall not exceed 2.1 pounds per hour and 9.2 TPY.

Applicable Compliance Method

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

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

c. Emission Limitations:

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

Applicable Compliance Method:

Compliance shall be demonstrated through emissions tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, 25 or 18 and/or 25a, and as specified in term f)(3) below.

The annual emission limitation was established by multiplying the hourly emission limitation by 8,760 hrs/year and dividing by 2,000 lbs/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 emission testing shall be conducted approximately 2.5 years after permit issuance.
- b. The emission testing shall be conducted to demonstrate compliance with the hourly emission limitations for PE, SO₂, and VOC as specified in f)(2)a. through f)(2)c. above.

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

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

Method 5	40 <u>CFR</u> Part 60, Appendix A, and/or;
Method 6	40 <u>CFR</u> Part 60, Appendix A, and/or;
Method 6c	40 <u>CFR</u> Part 60, Appendix A, and/or;
Method 18	40 <u>CFR</u> Part 60, Appendix A, and/or;
Method 25	40 <u>CFR</u> Part 60, Appendix A, and/or;
Method 25a	40 <u>CFR</u> Part 60, Appendix A.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

- 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 the 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 the 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 the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
- f. Personnel from the 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.



3. P036, 20B Reactivation Kiln

Operations, Property and/or Equipment Description:

Carbon Regeneration Kiln Controlled by an afterburner followed by a scrubber

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) b)(1)d., d)(7) through d)(9), and e)(4).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI No. 01-08619, issued 7/18/2002)	Particulate emissions (PE) shall not exceed 0.12 pound per hour and 0.54 ton per year (TPY). Nitrogen oxides (NOx) emissions shall not exceed 1.52 pounds per hour and 6.66 TPY. Carbon monoxide (CO) emissions shall not exceed 0.58 pound per hour and 2.53 TPY. Sulfur dioxide (SO ₂) emissions shall not exceed 0.54 pound per hour and 2.37 TPY. Volatile organic compound (VOC) emissions shall not exceed 7.53 pounds per hour and 33.0 TPY. 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.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		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. Hydrochloric acid (HCl) emissions shall not exceed 0.94 pound per hour and 4.12 TPY. See b)(2)a and b)(2)b below.
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)(7) through d)(9), and e)(4).

(2) Additional Terms and Conditions

- a. The thermal incinerator controlling VOC emissions from this emissions unit shall operate with a minimum control efficiency of 95%, by weight, for VOC emissions.
- b. The scrubber controlling the PE, SO₂ and HCl emissions from this emissions unit shall operate with a minimum control efficiency of 95%, by weight.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit-to-Install No. 01-08619, issued 7/18/2002:d)(5). The monitoring and record keeping requirements contained in the above-referenced Permit-to-Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.



[OAC rule 3745-77-07(A)(3)(a)(ii)]

- (2) 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.

- (3) 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.

- (4) 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.

- (5) 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.

- (6) 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.

- (7) The permit to install application for this emissions unit, P036, was evaluated based on the theoretical worst case feed material and the design parameters of the emissions unit's exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application (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 PTI No. 01-08619:
 - i. Toxic Contaminant: Benzene
TLV (ug/m3): 1,600
Maximum Hourly Emission Rate (lbs/hr): 0.82
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 10.46
MAGLC (ug/m3): 38TLV (ug/m3):
 - 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 (lbs/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 unit P036, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

- (8) 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 PTI 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.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

- (9) 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.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

e) Reporting Requirements

- (1) Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit-to-Install No. 01-08619, issued 7/18/2002: e)(3). The reporting requirements contained in the above-referenced Permit-to-Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit-to-Install.

[OAC rule 3745-77-07(A)(3)(a)(ii)]

- (2) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. 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;
 - b. all 3-hour periods of time during which the average pressure drop across the scrubber was not maintained at or above the required level;
 - c. 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; and
 - d. 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.
- (3) The permittee shall submit semiannual written reports that identify:
 - a. all days during which any visible particulate emissions were observed from the stack serving this emissions unit; and
 - b. any corrective actions taken to minimize or eliminate the visible particulate emissions.

These reports shall be submitted to the Director (Ohio EPA, Central District Office, DAPC) by January 31 and July 31 of each year and shall cover the previous 6-month period.

[OAC rule 3745-77-07(A)(3)(c)]



- (4) The permittee shall submit quarterly deviation reports, to Ohio EPA, Central District Office, DAPC documenting any exceedance of the daily limitation on toxic air emissions or any deviation from a restriction on the process or hours of operation, as established by the Director in order to maintain any toxic air contaminant below its MAGLC. The permittee shall also report any changes made, during the calendar quarter, to a parameter or value entered into the dispersion model that demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F). These quarterly reports shall be submitted by April 30, July 31, October 31, and January 31, and shall cover the records for the previous calendar quarters.
 - (5) The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.
- f) Testing Requirements
- (1) Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit-to-Install No. 01-08619, issued 7/18/2002: f(4)d. The testing requirements contained in the above-referenced Permit-to-Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit-to-Install.

[OAC rule 3745-77-07(A)(3)(a)(ii)]
 - (2) Compliance with the emission limitations specified in sections b)(1) and b)(2) shall be determined in accordance with the following methods:
 - a. Emission Limitations:

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

Applicable Compliance Method:

Compliance shall be demonstrated through emissions tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 5, and as specified in term f)(3) below. The results of the emissions test shall be reported in terms of pounds per hour.

The annual emission limitation was established by multiplying the hourly emission limitation by 8,760 hrs/year and dividing by 2,000 lbs/ton. Therefore, compliance with the annual emission limitation is ensured if compliance is maintained with the hourly emission limitation.
 - b. Emission Limitations:

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

Applicable Compliance Method:

Compliance shall be demonstrated through emissions tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, and 7e and as



specified in term f)(3) below. The results of the emissions test shall be reported in terms of pounds per hour.

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

c. Emission Limitations:

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

Applicable Compliance Method:

Compliance shall be demonstrated through emissions tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, and 10 and as specified in term f)(3) below. The results of the emissions test shall be reported in terms of pounds per hour.

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

d. Emission Limitations:

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

Applicable Compliance Method:

Compliance shall be demonstrated through emissions tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, and 26a and as specified in term f)(3) below. The results of the emissions test shall be reported in terms of pounds per hour.

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

e. Emission Limitations:

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

Applicable Compliance Method:

Compliance shall be demonstrated through emissions tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, 25 or 18 and/or 25a, and as specified in term f)(3) below. The results of the emissions test shall be reported in terms of pounds per hour.



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

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

- a. The emission testing shall be conducted approximately 2.5 years after permit issuance.
- b. The emission testing shall be conducted to demonstrate compliance with the hourly emission limitations for PE, HCl, NOx, CO, and VOC as specified in f)(2)a. through f)(2)e. above.

Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

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

Method 5	40 <u>CFR</u> Part 60, Appendix A, and/or;
Method 6	40 <u>CFR</u> Part 60, Appendix A, and/or;
Method 6c	40 <u>CFR</u> Part 60, Appendix A, and/or;
Method 7e	40 <u>CFR</u> Part 60, Appendix A, and/or;
Method 10	40 <u>CFR</u> Part 60, Appendix A, and/or;
Method 18	40 <u>CFR</u> Part 60, Appendix A, and/or;
Method 25	40 <u>CFR</u> Part 60, Appendix A, and/or;
Method 25a	40 <u>CFR</u> Part 60, Appendix A, and/or;
Method 26a	40 <u>CFR</u> Part 60, Appendix A, and/or;
Method 29	40 <u>CFR</u> Part 60, Appendix A, and/or

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

- 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, DAPC. 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, DAPC. 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, DAPC refusal to accept the results of the emission test(s).

- f. Personnel from Ohio EPA, Central District Office, DAPC 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 the Ohio EPA, Central District Office, DAPC within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Central District Office, DAPC.
- (4) Compliance with the emission limitations specified in sections b)(1) and b)(2) shall be determined in accordance with the following methods upon request.
- a. Applicable Term and Condition

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 USEPA 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 records maintained in section d)(5).
 - b. Applicable Term and Condition

The scrubber controlling the PE, SO₂ 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 USEPA 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 records maintained in section d)(2) – d)(4).
 - c. Emission Limitations:

SO₂ emissions shall not exceed 0.54 pound per hour and 2.37 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 6 or 6c and as specified in term f)(3) above.

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

d. 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).

e. Emission Limitations:

- i. Barium emissions shall not exceed 0.001 pound per hour and 0.004 TPY.
- ii. Zinc emissions shall not exceed 0.0009 pound per hour and 0.004 TPY.
- iii. Copper emissions shall not exceed 0.0008 pound per hour and 0.004 TPY.
- iv. Cadmium emissions shall not exceed 0.002 pound per hour and 0.009 TPY.
- v. Lead emissions shall not exceed 0.0002 pound per hour and 0.0007 TPY.
- vi. 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 and as specified in term f)(3) above.

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



Final Title V Permit
Calgon Carbon Corp.
Permit Number: P0082743
Facility ID: 0125040716
Effective Date: 7/8/2013

g) Miscellaneous Requirements

(1) none



4. P038, B33 Mill/Gyratory Sifter

Operations, Property and/or Equipment Description:

Carbon Screening vented to a cartridge filter

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI No. 01-08619, issued 7/18/2002)	Particulate emissions (PE) shall not exceed 1.25 pounds per hour and 5.48 tons per year (TPY). See b)(2).a
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).

(2) Additional Terms and Conditions

a. PE from the baghouse controlling PE from this emissions unit shall not exceed 0.02 grain per dry standard cubic foot (dscf).

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

c) Operational Restrictions

None.

d) Monitoring and/or Recordkeeping Requirements

(1) Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and



record keeping requirements contained in Permit-to-Install No. 01-08619, issued 7/18/2002:d)(6). The monitoring and record keeping requirements contained in the above-referenced Permit-to-Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

[OAC rule 3745-77-07(A)(3)(a)(ii)]

- (2) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit is in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

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

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

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

- f. a description of the corrective action;
- g. the date corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. the pressure drop readings immediately after the corrective action was implemented; and
- k. the name(s) of the personnel who performed the work.



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

This range or limit on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions units. In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

- (3) In order to maintain compliance with the applicable emission limitation contained in this permit, the acceptable range established for the pressure drop across the baghouse is between 1.0 to 6.0 inches of water.
- (4) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible PE 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 emission incident; and
 - e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission 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.

e) Reporting Requirements

- (1) Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit-to-Install No. 01-08619, issued 7/18/2002: e)(3). The reporting requirements contained in



the above-referenced Permit-to-Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit-to-Install

[OAC rule 3745-77-07(A)(3)(a)(ii)]

- (2) The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
- (3) The permittee shall submit semiannual written reports that (a) identify all days during which any visible PE were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible PE. These reports shall be submitted to Ohio EPA, Central District Office, DAPC by January 31 and July 31 of each year and shall cover the previous 6-month period.

f) Testing Requirements

- (1) Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit-to-Install No. 01-08619, issued 7/18/2002: f)(4)d. The testing requirements contained in the above-referenced Permit-to-Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit-to-Install.

[OAC rule 3745-77-07(A)(3)(a)(ii)]

- (2) Compliance with the emission limitations specified in Section A.I shall be determined in accordance with the following methods:

a. Emission Limitations:

PE shall not exceed 1.25 pounds per hour and 0.02 grain/dscf:

Applicable Compliance Method:

- i. Compliance with the emission limitation and condition shall be based upon the records maintained in section d)(1) – d)(2)
- ii. If required, compliance shall be demonstrated through emissions tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-5.

b. Emission Limitation:

PE shall not exceed 5.48 TPY.

Applicable Compliance Method:

The annual emission limitation was established by multiplying the hourly emission limitation by 8,760 hrs/year and dividing by 2,000 lbs/ton. Therefore,



compliance with the annual emission limitation is ensured if compliance is maintained with the hourly emission limitation.

c. Emission Limitation:

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

g) Miscellaneous Requirements

- (1) None.