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

7/1/2013

Certified Mail

Facility ID: 0448020014
Permit Number: P0103773
County: Lucas

Timothy Haniford
Chemtrade Refinery Solutions Limited Partnership
1400 Otter Creek
Oregon, OH 43616

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

Dear Permit Holder:

Enclosed is a finalOhio 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 Toledo Department of Environmental Services as indicated on page one of your permit.

Sincerely,

Michael W. Ahern

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

Cc: U.S. EPA Region 5 *Via E-Mail Notification*
Toledo Department of Environmental Services

Response to Comments

Facility ID:	0448020014
Facility Name:	Chemtrade Refinery Solutions Limited Partnership
Facility Description:	sulfuric acid plant
Facility Address:	1400 Otter Creek Road Oregon, OH 43616-1232 Lucas County
Permit:	P0103773, Title V Permit - Renewal
A public notice for the draft permit issuance was published in the Ohio EPA Weekly Review and appeared in the Toledo Blade on 06/14/2010. The comment period ended on 07/14/2010.	
Hearing date (if held)	**None**
Hearing Public Notice Date (if different from draft public notice)	None

The following comments were received during the comment period specified. Ohio EPA reviewed and considered all comments received during the public comment period. By law, Ohio EPA has authority to consider specific issues related to protection of the environment and public health. Often, public concerns fall outside the scope of that authority. For example, concerns about zoning issues are addressed at the local level. Ohio EPA may respond to those concerns in this document by identifying another government agency with more direct authority over the issue.

In an effort to help you review this document, the questions are grouped by topic and organized in a consistent format. PDF copies of the original comments in the format submitted are available upon request.

1. Topic: None

a. Comment: None

b. Response: None

Note: The permittee requested extensive changes in the underlying PTI's associated with this Title V permit. Comments related to those recently issued PTIs resolved any underlying issues and the company had no additional comments related to the issuance of this permit.

FINAL

Division of Air Pollution Control
Title V Permit
for
Chemtrade Refinery Solutions Limited Partnership

Facility ID:	0448020014
Permit Number:	P0103773
Permit Type:	Renewal
Issued:	7/1/2013
Effective:	7/22/2013
Expiration:	7/22/2018

Division of Air Pollution Control
Title V Permit
for
Chemtrade Refinery Solutions Limited Partnership

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Authorization

Facility ID:	0448020014
Facility Description:	Sulfuric acid plant
Application Number(s):	A0035629, A0037944, A0044570
Permit Number:	P0103773
Permit Description:	Title V Renewal permit for a sulfuric acid plant
Permit Type:	Renewal
Issue Date:	7/1/2013
Effective Date:	7/22/2013
Expiration Date:	7/22/2018
Superseded Permit Number:	P0088529

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

Chemtrade Refinery Solutions Limited Partnership
1400 Otter Creek Road
Oregon, OH 43616-1232

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

Toledo Department of Environmental Services
348 South Erie Street
Toledo, OH 43604
(419)936-3015

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 Toledo Department of Environmental Services. 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

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 Toledo Department of Environmental Services.

(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.

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) B.7.

2. The following emissions units contained in this permit are subject to 40 CFR Part 60 Subpart H: P001 and P002. The complete NSPS and MACT requirements, including the MACT General Provisions may be accessed via the internet from the electronic Code of Federal Regulations (e-CFR) website http://ecfr.gpoaccess.gov or by contacting the appropriate Ohio EPA district or local air agency.

3. The following emissions units contained in this permit are subject to 40 CFR Part 60 Subpart Kb: T004and T005. The complete NSPS and MACT requirements, including the MACT General Provisions may be accessed via the internet from the electronic Code of Federal Regulations (e-CFR) website http://ecfr.gpoaccess.gov or by contacting the appropriate Ohio EPA district or local air agency.

4. The Toledo Division of Environmental Services (TES) has approved the Compliance Assurance Monitoring (CAM) plan submitted by the permittee, pursuant to 40 CFR Part 64, for emissions units P001 and P002. The permittee shall comply with the provisions of the plan (as specified in Section C - Emissions Unit Terms and Conditions) during any operation of the aforementioned emissions units.

5. This facility developed and registered a risk management plan pursuant to section 112(r) of the Act and is required to comply with the requirements of section 112(r)

6. The following insignificant emissions units are located at this facility:

   T001 - Tank 200 Spent Acid Storage (PTI 04-819);
   T002 - Tank 196 Spent Acid Storage (PTI 04-1022);
   T003 - Tank 198 Spent Acid Storage (PTI 04-1022);
   T004 - Tank 202 Spent Acid Storage (PTI 04-01164; and
   T005 - Tank 204 Spent Acid Storage (PTI 04-01164).

   Each insignificant emissions unit 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 emissions unit. Insignificant emissions units listed above that are not subject to specific permit to install requirements are subject to one or more applicable requirements contained in the SIP-approved versions of OAC Chapters 3745-17, 3745-18, and 3745-21.

   [Authority for term: OAC rule 3745-77-07(A)(13)]

7. The following insignificant emissions units located at this facility are exempt from permit requirements because they are not subject to any applicable requirements or because they meet the "de minimis" criteria established in OAC rule 3745-15-05:

   Z022 - gasoline storage tank (OAC rule 3745-15-05);
   Z029 - Tank 217 Off-spec H_2SO_4 storage (OAC rule 3745-15-05);
   Z030 - Tank 206 H_2SO_4 Storage (OAC rule 3745-15-05);
   Z031 - Tank 208 H_2SO_4 Storage (OAC rule 3745-15-05);
   Z032 - Tank 209 Spent Acid Storage (OAC rule 3745-15-05);
   Z033 - Tank 211 H_2SO_4 Storage (OAC rule 3745-15-05);
   Z034 - Tank 212 Oleum Storage (OAC rule 3745-15-05);

Z035 - Tank 213 H_2SO_4 Storage (OAC rule 3745-15-05);
Z037 - Tank 215 H_2SO_4 Storage (OAC rule 3745-15-05);
Z038 - Tank 216 Fuel Oil Storage (OAC rule 3745-15-05);
Z039 - Tank 666 Fuel Oil Storage (OAC rule 3745-15-05);
Z040 - Sulfur Tank (OAC rule 3745-15-05);
Z041 - Sulfur Pit (OAC rule 3745-15-05);
Z042 - Tank 220 Dilute Caustic Storage (no applicable requirements);
Z043 - Tank 250 Caustic Storage (no applicable requirements);
Z044 - Building heaters (OAC rule 3745-15-05); and
Z045 - Cooling Towers (OAC rule 3745-15-05).

C. Emissions Unit Terms and Conditions

1. B001, A-Plant Preheater

Operations, Property and/or Equipment Description: 19 million Btu/hr natural gas-fired heater

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 04-1166 issued June 3, 1999)	Emissions from the stack serving this emissions unit shall not exceed: 1.6 pounds per hour and 7.0 tons per year of carbon monoxide (CO); 0.95 pound per hour and 4.2 tons per year of nitrogen oxides (NOx); 0.04 pound per hour and 0.16 ton per year of particulate emissions (PE); 0.01 pound per hour and 0.05 ton per year sulfur dioxide (SO_2); 0.10 pound per hour and 0.46 ton per year volatile organic compounds (VOC); and see b)(2)a. and b)(2)b.
b.	OAC rule 3745-17-07(A)	Visible particulate emissions, from any stack, shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
c.	OAC rule 3745-17-10(B)	0.020 pound of PE per million Btu of heat input.
d.	OAC rule 3745-18-06(A)	See b)(2)c.

(2) Additional Terms and Conditions

a. The hourly and annual emissions limitations above were established for PTI purposes to reflect the potential to emit for this emissions unit while combusting natural gas. Therefore, it is not necessary to develop monitoring, record keeping and/or reporting requirements to ensure compliance with these limitations.

b. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A) and OAC rule 3745-17-10(B).

c. OAC rule 3745-18-06(A) does not establish sulfur dioxide emission limitations for the fuel burning equipment associated with this emissions unit because the emissions unit only employs natural gas as fuel. However, OAC rule 3745-18-06(A) requires that the natural gas being combusted meet certain fuel quality restrictions (a heat content greater than 950 Btu per standard cubic foot and a sulfur content less than 0.6 pound per million standard cubic feet). Because the natural gas being burned in this emissions unit is the standard, pipeline quality natural gas supplied to industrial, commercial, and residential users throughout the State, it is assumed that it meets the fuel quality restrictions; and no monitoring, record keeping or reporting requirements are necessary to ensure ongoing compliance with OAC rule 3745-18-06(A).

On September 1, 2003, OAC rule 3745-18-06 was revised to delete the following phrase: "having a heat content greater than 950 Btu per standard cubic foot and a sulfur content less than 0.6 pounds per million standard cubic feet". Therefore, this phrase is no longer part of the State regulations. However, that rule revision has not yet been submitted to the 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 3745-18-06, the requirements still exists as part of the federally-approved SIP for Ohio.

c) Operational Restrictions

(1) The permittee shall burn only natural gas as fuel in this emissions unit.

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

d) Monitoring and/or Recordkeeping Requirements

(1) For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

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

[Authority for term: OAC 3745-77-07(C)(1)(3)

(3) 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 04-1166 as issued June 3, 1999: e)(1) and e)(2). 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.

[Authority for term: OAC rule 3745-77-07(A)(3)(a)(ii)]

f) Testing Requirements

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

a. Emission Limitation:

20% opacity as a 6-minute average.

Applicable Compliance Method:

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

b. Emission Limitation:

1.6 pounds per hour of CO.

Applicable Compliance Method:

This emission limitation was established based on emission factors specified in AP 42, Table 1.4-1, dated July 1998, as follows: divide the emission factor of 84 pounds of CO emissions per million standard cubic feet by a heating value of 1,020 Btu per standard cubic foot and multiply by the maximum burner heat input capacity of 19.0 mmBtu per hour.

If required, the permittee shall demonstrate compliance through performance testing in accordance with the methods and procedures provided in Methods 1 through 4 and Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA.

c. Emission Limitation:

7.0 tons per year of CO.

ApplicableCompliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations

performed as follows: multiply the emission limitation of 1.6 pounds of CO per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

d. Emission Limitation:

0.95 pound per hour of NOx.

Applicable Compliance Method:

This emission limitation was established based on emission factors specified in AP 42, Table 1.4-1, dated July 1998 as follows: divide the low-NOx burner emission factor of 50 pounds of NOx emissions per million standard cubic feet by a heating value of 1,020 Btu per standard cubic foot and multiply by the maximum burner hat input capacity of 19.0 mmBtu per hour

If required, the permittee shall demonstrate compliance through performance testing in accordance with the methods and procedures provided in Methods 1 through 4 and Method 7 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA.

e. Emission Limitation:

4.2 tons per year of NOx

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the emission limitation of 0.95 pound of NOx per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

f. Emission Limitation:

0.020 pound of PE per million Btu of heat input.

Compliance may be demonstrated by calculations based on emission factors specified in AP 42, Table 1.4-2, dated July 1998, as follows: divide the emission factor of 1.9 pounds of PE emissions per million standard cubic feet by a heating value of 1,020 Btu per standard cubic foot.

If required, the permittee shall demonstrate compliance through performance testing in accordance with the methods and procedures provided in Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA.

g. Emission Limitation:

0.04 pound per hour of particulate emissions

Applicable Compliance Method:

This emission limitation was established based on emission factors specified in AP 42, Table 1.4-2, dated July 1998, as follows: divide the emission factor of 1.9 pounds of PE emissions per million standard cubic feet by a heating value of 1,020 Btu per standard cubic foot and multiply by the maximum burner heat input capacity of 19.0 mmBtu per hour.

If required, the permittee shall demonstrate compliance through performance testing in accordance with the methods and procedures provided in Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

h. Emission Limitation:

0.16 ton per year of particulate emissions

Applicable Compliance Method:

This emission limitation was established based on emission factors specified in AP 42, Table 1.4-2, dated July 1998, as follows: divide the emission factor of 1.9 pounds of PE emissions per million standard cubic feet by a heating value of 1,020 Btu per standard cubic foot and multiply by the maximum burner heat input capacity of 19.0 mmBtu per hour, 8760 hours per year and divide by 2000 pounds per ton.

i. Emission Limitation:

0.01 pound per hour of SO_2

Applicable Compliance Method:

This emission limitation was established based on emission factors specified in AP 42, Table 1.4-2, dated July 1998, as follows: divide the emission factor of 0.6 pound of SO2 emissions per million standard cubic feet by a heating value of 1,020 Btu per standard cubic foot and multiply by the maximum burner heat input capacity of 19.0 mmBtu per hour.

If required, the permittee shall demonstrate compliance through performance testing in accordance with the methods and procedures provided in Methods 1 through 4 and Method 6 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

j. Emission Limitation:

0.05 ton per year of SO_2

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations

performed as follows: multiply the emission limitation of 0.01 pound of SO2 per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

k. Emission Limitation:

0.10 pound per hour of VOC

Applicable Compliance Method:

This emission limitation was established based on emission factors specified in AP 42, Table 1.4-2, dated July 1998, as follows: divide the emission factor of 5.5 pounds of VOC emissions per million standard cubic feet by a heating value of 1,020 Btu per standard cubic foot and multiply by the maximum burner heat input capacity of 19.0 mmBtu per hour.

If required, the permittee shall demonstrate compliance through performance testing in accordance with the methods and procedures provided in Methods 1 through 4 and Method 25 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA.

l. Emission Limitation:

0.46 ton per year of VOC

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the emission limitation of 0.10 pound of VOC per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install 04-1166 as issued June 3, 1999: f)(1). The tesing 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.

[Authority for term: OAC rule 3745-77-07(A)(3)(a)(ii)]

g) Miscellaneous Requirements

(1) None.

2. B002, B-Plant Preheater

Operations, Property and/or Equipment Description: 16.5 million Btu/hr natural gas-fired heater

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 04-1166 issued June 3, 1999)	Emissions from the stack serving this emissions unit shall not exceed: 1.4 pounds per hour and 6.1 tons per year of carbon monoxide (CO), 0.83 pound per hour and 3.6 tons per year nitrogen oxides (NOx), 0.03 pound per hour and 0.14 ton per year particulate emissions (PE), 0.01 pound per hour and 0.04 ton per year sulfur dioxide (SO_2), 0.09 pound per hour and 0.40 ton per year volatile organic compounds (VOC), and see b)(2)a. and b)(2)b.
b.	OAC rule 3745-17-10(B)	Visible particulate emissions, from any stack, shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
c.	OAC rule 3745-17-07(A)	0.020 pound of PE per million Btu of heat input.
d.	OAC rule 3745-18-06(A)	See b)(2)c.

(2) Additional Terms and Conditions

a. The hourly and annual emissions limitations above were established for PTI purposes to reflect the potential to emit for this emissions unit while combusting natural gas. Therefore, it is not necessary to develop monitoring, record keeping and/or reporting requirements to ensure compliance with these limitations.

b. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A) and OAC rule 3745-17-10(B).

c. OAC rule 3745-18-06(A) does not establish sulfur dioxide emission limitations for the fuel burning equipment associated with this emissions unit because the emissions unit only employs natural gas as fuel. However, OAC rule 3745-18-06(A) requires that the natural gas being combusted meet certain fuel quality restrictions (a heat content greater than 950 Btu per standard cubic foot and a sulfur content less than 0.6 pound per million standard cubic feet). Because the natural gas being burned in this emissions unit is the standard, pipeline quality natural gas supplied to industrial, commercial, and residential users throughout the State, it is assumed that it meets the fuel quality restrictions; and no monitoring, record keeping or reporting requirements are necessary to ensure ongoing compliance with OAC rule 3745-18-06(A).

On September 1, 2003, OAC rule 3745-18-06 was revised to delete the following phrase: "having a heat content greater than 950 Btu per standard cubic foot and a sulfur content less than 0.6 pounds per million standard cubic feet". Therefore, this phrase is no longer part of the State regulations. However, that rule revision has not yet been submitted to the 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 3745-18-06, the requirements still exists as part of the federally-approved SIP for Ohio.

c) Operational Restrictions

(1) The permittee shall burn only natural gas as fuel in this emissions unit.

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

d) Monitoring and/or Recordkeeping Requirements

(1) For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

[Authority for term: OAC 3745-77-07(C)(1)

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[Authority for term: OAC 3745-77-07(C)(1)

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

[Authority for term: OAC 3745-77-07(C)(1)

(3) 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 04-1166 as issued June 3, 1999: e)(1) and e)(2). 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.

[Authority for term: OAC rule 3745-77-07(A)(3)(a)(ii)]

f) Testing Requirements

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

a. Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

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

b. Emission Limitation:

1.4 pounds per hour of CO

Applicable Compliance Method:

This emission limitation was established based on emission factors specified in AP 42, Table 1.4-1, dated July 1998, as follows: divide the emission factor of 84 pounds of CO emissions per million standard cubic feet by a heating value of 1,020 Btu per standard cubic foot and multiply by the maximum burner heat input capacity of 16.5 mmBtu per hour.

If required, the permittee shall demonstrate compliance through performance testing in accordance with the methods and procedures provided in Methods 1 through 4 and Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA.

c. Emission Limitation:

6.1 tons per year of CO

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the emission limitation of 1.4 pounds of CO per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

d. Emission Limitation:

0.83 pound per hour of NOx

Applicable Compliance Method:

This emission limitation was established based on emission factors specified in AP 42, Table 1.4-1, dated July 1998 as follows: divide the low-NOx burner emission factor of 50 pounds of NOx emissions per million standard cubic feet by a heating value of 1,020 Btu per standard cubic foot and multiply by the maximum burner hat input capacity of 16.5 mmBtu per hour

If required, the permittee shall demonstrate compliance through performance testing in accordance with the methods and procedures provided in Methods 1 through 4 and Method 7 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA.

e. Emission Limitation:

3.6 tons per year of NOx

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the emission limitation of 0.83 pound of NOx per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

f. Emission Limitation:

0.020 pound of PE per million Btu of heat input.

Compliance may be demonstrated by calculations based on emission factors specified in AP 42, Table 1.4-2, dated July 1998, as follows: divide the emission factor of 1.9 pounds of PE emissions per million standard cubic feet by a heating value of 1,020 Btu per standard cubic foot.

If required, the permittee shall demonstrate compliance through performance testing in accordance with the methods and procedures provided in Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA.

g. Emission Limitation:

0.03 pound per hour of particulate emissions

Applicable Compliance Method:

This emission limitation was established based on emission factors specified in AP 42, Table 1.4-2, dated July 1998, as follows: divide the emission factor of 1.9 pounds of PE emissions per million standard cubic feet by a heating value of

1,020 Btu per standard cubic foot and multiply by the maximum burner heat input capacity of 19.0 mmBtu per hour.

If required, the permittee shall demonstrate compliance through performance testing in accordance with the methods and procedures provided in Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA.

h. Emission Limitation:

0.14 ton per year of particulate emissions

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the emission limitation of 0.03 pound of PE per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

i. Emission Limitation:

0.01 pound per hour of SO_2

Applicable Compliance Method:

This emission limitation was established based on emission factors specified in AP 42, Table 1.4-2, dated July 1998, as follows: divide the emission factor of 0.6 pounds of SO2 emissions per million standard cubic feet by a heating value of 1,020 Btu per standard cubic foot and multiply by the maximum burner heat input capacity of 16.5 mmBtu per hour.

If required, the permittee shall demonstrate compliance through performance testing in accordance with the methods and procedures provided in Methods 1 through 4 and Method 6 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA.

j. Emission Limitation:

0.04 ton per year of SO_2

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the emission limitation of 0.01 pound of SO2 per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

k. Emission Limitation:

0.09 pound per hour of VOC

Applicable Compliance Method:

This emission limitation was established based on emission factors specified in AP 42, Table 1.4-2, dated July 1998, as follows: divide the emission factor of 5.5 pounds of VOC emissions per million standard cubic feet by a heating value of 1,020 Btu per standard cubic foot and multiply by the maximum burner heat input capacity of 16.5 mmBtu per hour.

If required, the permittee shall demonstrate compliance through performance testing in accordance with the methods and procedures provided in Methods 1 through 4 and Method 25 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA.

l. Emission Limitation:

0.40 ton per year of VOC

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the emission limitation of 0.09 pound of VOC per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

[Authority for term: OAC 3745-77-07(C)(1)]

(2) Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install 04-1166 as issued June 3, 1999: f)(1). The testting 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..

[Authority for term: OAC 3745-77-07(A)(3)(a)(ii)]

g) Miscellaneous Requirements

(1) None.

3. P001, A-Plant

Operations, Property and/or Equipment Description:

sulfuric acid regeneration, A plant with dual absorption and oxygen enrichment controlled by a wet 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) 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) (P0109874 as effective February 20, 2013)	Emissions of carbon monoxide (CO) from this emissions unit shall not exceed 7.41 pounds per hour and 32.46 tons per year. Emissions of nitrogen oxides (NOx) from this emissions unit shall not exceed 5.90 pounds per hour and 25.85 tons per year Emissions of sulfur dioxide (SO2) from this emissions unit shall not exceed a rolling, 3-hour average of 90.5 pounds per hour and 271.8 tons as a rolling, 365-day summation. Emissions of sulfuric acid mist from this emissions unit shall not exceed 3.88 pounds per hour and 17.0 tons per year. See b)(2)a. and b)(2)b.
b.	OAC rule 3745-31-05(D) (P0109874 as effective February 20, 2013)	Pursuant to the provisions established in Consent Decree case 3:09-cv-00067-JGC filed on 04/02/2009 and as amended 02/10/2010, Sections V.A.18. and V.C.23., the emissions from this emissions unit shall not exceed: a rolling, 3-hour average of 3.5 pounds of SO2 per ton of 100% sulfuric acid produced (short-term limit);

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		a rolling, 365-day average of 2.40 pounds of SO2 per ton of 100% sulfuric acid produced (long-term limit); and, 0.15 pound of acid mist, expressed as H2SO4, per ton of 100% sulfuric acid produced. See b)(2)c. through b)(2)f.
c.	OAC rule 3745-17-07(A)(1)	See b)(2)g.
d.	OAC rule 3745-17-11(B)(1)	See b)(2)g. and b)(2)h.
e.	OAC rule 3745-18-54(X)	See b)(2)g.
f.	40 CFR Part 60, Subpart A (60.1 through 60.19)	40 CFR Part 60, Subpart A provides applicability provisions, definitions, and other general provisions that are applicable to this emissions unit. See b)(2)i. through b)(2)l.
g.	40 CFR Part 60, Subpart H (40 CFR 60.80-85) [In accordance with 40 CFR 60.82(a) and 60.83(a), this emissions unit is a sulfuric acid production facility *subject to the emission limitation/control measures specified in this section.]*	See b)(2)m.
h.	40 CFR Part 64 [In accordance with 40 CFR 64.2(a), this emissions unit is a pollutant specific emissions unit located at a major source required to obtain a Title V permit, is subject to a particulate emission standard, uses a control device to achieve compliance with the emission standard, and has potential pre-control device particulate emissions greater than 100 tons per year.]	A CAM plan for this emissions unit has been developed for SO2 emissions as presented in d)(7) and d)(8).

(2) Additional Terms and Conditions

a. The hourly and annual emissions limitations for CO and NOx were established for PTI purposes to reflect the potential to emit for this emissions unit while combusting natural gas. Therefore, it is not necessary to develop monitoring,

record keeping and/or reporting requirements to ensure compliance with these limitations.

b. The hourly and annual emissions limitations for SO2 and sulfuric acid mist were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop monitoring, record keeping and/or reporting requirements to ensure compliance with these limitations.

c. Pursuant to the provisions established in the federal consent decree, Section III.8., the following definitions shall apply to the terms and conditions of this emissions unit:

i. “Long-term limit” shall mean a rolling, 365-day average SO_2 emissions limit expressed as pounds of SO_2 emitted per ton of 100% H_2SO_4 produced. Compliance with the long-term limit shall be calculated in accordance the requirements of this permit. The long-term limit shall apply at all times, including during periods of startup, shutdown, or malfunction.

ii. “Short-term limit” shall mean a rolling, 3-hour average SO_2 emissions limit expressed as pounds of SO_2 emitted per ton of 100% H_2SO_4 produced. Compliance with the short-term limit shall be calculated in accordance the requirements of this permit. The short-term limit does not apply during periods of startup, shutdown, or malfunction.

iii. “Startup" means the period of time beginning when the feed of sulfur-bearing compounds to the furnace commences and lasting for no more than 24 hours.

iv. “Sulfur-bearing compounds” means elemental sulfur, alkylation or other spent sulfuric acids, hydrogen sulfide, organic sulfides, mercaptans, or acid sludge, but they exclude hydrocarbon and conventional fossil fuels such as natural gas or fuel oil.

v. "Shutdown" means the cessation of operation of a sulfuric acid plant for any reason. Shutdown begins at the time the feed of sulfur-bearing compounds to the furnace ceases and ends at the earlier of three hours later or when the flow rate on the stack volumetric flow rate analyzer falls below 10% span.

vi. "Malfunction" means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused by poor maintenance or careless operation are not malfunctions.

d. Pursuant to the provisions established in the federal consent decree, Amended Appendix G, page 6 - Analyzer Specifications, dated February 10, 2010:

i. the permittee shall maintain and operate a volumetric flow rate analyzer which meets the applicable requirements of 40 CFR Part 60, Appendix B,

Performance specification 6 and the Quality Assurance and Quality Control Procedures in 40 CFR Part 60, Appendix F, Procedure 1;

ii. the permittee shall maintain and operate a converter inlet SO_2 analyzer which meets the applicable requirements of Performance Specification 2 of 40 CFR Part 60, Appendix B and the Quality Assurance and Quality Control Procedures in 40 CFR Part 60, Appendix F, Procedure 1; and

iii. the permittee shall maintain and operate a discharge stack SO_2 analyzer which meets the applicable requirements of 40 CFR Part 60.11, 60.13, Performance Specification 2 of 40 CFR Part 60, Appendix B, and the Quality Assurance and Quality Control Procedures in 40 CFR Part 60, Appendix F, Procedure 1.

e. Pursuant to the provisions established in the federal consent decree, Section VI.48., SO2 and acid mist emissions limitations of section b)(1)b. shall not be relaxed.

f. Pursuant to 40 CFR Part 60, Subpart H, the following provisions will be an approved alternateas established in the February 10, 2010 amendment to Appendix G of the federal consent decree, “Analyzer Specifications” and “Compliance with the NSPS 40 CFR Part 60, Subpart H”:

i. The optimum location to obtain SO2 readings may differ from the requirements of Performance Specification 2, Section 8.1.

ii. The permittee shall conduct quarterly cylinder gas audits on the converter SO2 analyzer in lieu of the annual RATA described in Appendix F, Section 5.1.1.

iii. The required 40 CFR 60.84(a) stack SO2 analyzer span value shall become a dual range of 0 to 500 ppm (normal) and 0 to 3,600 ppm (during startup, shutdown and/or malfunction).

iv. The required 40 CFR 60.84(b) procedure for converting monitoring data shall become the procedures stated in this permit for calculating compliance with the NSPS 3-hour average emissions limitation

g. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

h. All particulate emissions from this emissions unit are emitted in the form of sulfuric acid mist.

i. In compliance with the requirements of 40 CFR 60.2: the continuous emission monitoring system consists of all the equipment used to acquire data to provide a record of emissions and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

j. In compliance with the requirements of 40 CFR 60.8(c): emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction shall not be considered a violation of the applicable emission limit.

k. In compliance with the requirements of 40 CFR 60.11(d): at all times, including periods of startup, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate any affected emissions unit including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used shall be based on information available to the Director which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

l. In compliance with the requirements of 40 CFR 60.13and 40 CFR Part 60, Appendix F: the permittee shall maintain a written quality assurance/quality control plan for the continuous SO_2 monitoring system, designed to ensure continuous valid and representative readings of SO_2 emissions from the continuous monitor(s), in units of the applicable standard(s). The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous SO_2 monitoring system must be kept on site and available for inspection during regular office hours.

The plan shall include the requirement to conduct quarterly cylinder gas audits or relative accuracy audits as required in 40 CFR Part 60; and to conduct relative accuracy test audits in units of the standard(s), in accordance with and at the frequencies required per 40 CFR Part 60.

m. In compliance with the requirements of 40 CFR 60.82 and 60.83: at all times except for periods of startup, shutdown, and malfunction, the permittee shall not cause to be discharged into the atmosphere any gases which:

i. contain sulfur dioxide in excess of 2 kilograms per metric ton of acid produced (4 pounds per ton), the production being expressed as 100 percent H_2SO_4;

ii. contain acid mist, expressed as H_2SO_4, in excess of 0.075 kilograms per metric ton of acid produced (0.15 pound per ton), the production being expressed as 100 percent H_2SO_4; and

c) exhibit 10 percent opacity or greater.Operational Restrictions

(1) The permittee shall burn only natural gas as fuel in this emissions unit.

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

d) Monitoring and/or Recordkeeping Requirements

(1) For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

[Authority for term: OAC 3745-77-07(C)(1)

(2) 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 emission incident; and

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) In compliance with the requirements of 40 CFR 60.13 and 40 CFR Part 60, Appendix B: the permittee shall maintain on site, the document of certification received from the U.S. EPA or the Ohio EPA's Central Office documenting that the continuous SO2 monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 2. The letter/document of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) Pursuant to the provisions established in the federal consent decree in the February 10, 2010 amendment to Appendix G, "Emissions Calculations", for purposes of compliance with OAC rule 3745-31-05(D), permittee shall comply with the following requirements:

a. SO_2 emissions will be monitored using an SO_2 analyzer at the converter inlet, an SO_2 analyzer at the exit stack, and a stack flow rate analyzer. Except for any analyzer malfunctions, associated repairs, and required quality assurance or control activities (including calibration checks and required zero and span adjustments), the permittee will conduct monitoring during all operating periods and during shutdown. The combination of SO_2 emission monitors and flow monitor will be identified in this permit as the SO_2 continuous emission monitoring system (CEMS).

b. Once every five (5) minutes, the analyzers will measure the stack SO_2 concentration (fraction, dry basis), the converter inlet SO_2 concentration (fraction, dry basis) and the volumetric flow rate (dry standard cubic feet per minute).

c. For purposes of calculating a rolling, 3-hour average the system will maintain an array of the 36 most recent measurements for each of the three monitored parameters. Every five minutes, the system will add the most recent readings to the array and exclude the oldest readings. The rolling, 3-hour average pound of SO_2 per ton of 100% H_2SO_4 emissions rate shall be calculated as follows:

$$E_{3\text{-hr ave}} = (1306.33 \text{ lb } SO_2/\text{ton acid}) \sum_{i=1}^{36} [(Q_{\text{stack } i})(B_i)(1-1.5A_i) \div (A_i - B_i)]$$

where:

A_i = converter inlet SO_2 concentration as a decimal fraction on a dry basis at measurement "i"

B_i = stack inlet concentration as a decimal fraction on a dry basisat measurement "i"

$E_{3\text{-hr ave}}$ = the 3-hour average SO_2 emission rate in units of pounds of SO_2 per ton of 100% H_2SO_4

$Q_{\text{stack } i}$ = volumetric flow rate of stack gas in units of dry standard cubic feet per minute (dscfm)at measurement "i"

d. For purposes of calculating a rolling, 365-day average the system will maintain an array of all of the measurements for each of the three monitored parameters for 365 days. Every day, the system will add the readings from that day to the array and exclude the readings from the oldest day. The rolling, 365-day average pound of SO_2 per ton of 100% H_2SO_4 emissions rate shall be calculated as follows:

$$E_{365\text{-day ave}} = (1306.33 \text{ lb } SO_2/\text{ton}) \sum_{j=1}^{n} [(\text{Qstack j})(\text{Bj})(1-1.5\text{Aj}) \div (\text{Aj}-\text{Bj})]$$

where:

Aj = converter inlet SO_2 concentration as a decimal fraction on a dry basis at measurement "j"

Bj = stack inlet concentration as a decimal fraction on a dry basisat measurement "j"

$E_{365\text{-day ave}}$ = the rolling, 365-day average SO_2 emission rate in units of pounds of SO_2 per ton of 100% H_2SO_4

n = the number of measurements taken at 5-minute intervals over the 365 day period.

Qstack j = volumetric flow rate of stack gas in units of dry standard cubic feet per minute (dscfm)at measurement "j"

e. During routine calibration checks and adjustments of any of the analyzers, the pre-calibration will be used to fill in any analyzer gaps that occur pending completion of the calibration checks and adjustments.

f. If any one or more than one analyzer is/are not operating for a period of 24 hours or greater, data gaps in the array involving the non-operational analyzer(s) will be filled in as follows:

   i. Exit stack gas will be sampled and analyzed for SO_2 at least once per hour, during all operating periods. Sampling will be conducted by Reich test or other established method (e.g. portable analyzer). The most recent hourly reading will be substituted for the twelve (12) five-minute readings that would otherwise have been taken if the analyzer had been operating normally.

   ii. Converter inlet gas either will be sampled and analyzed for SO_2 using a Reich test or other established method, or the concentration will be estimated using engineering judgment, at least once every four (4) hours during all operating periods. The most recent four-hour measurement/estimate will be substituted for the 48 five-minute readings that would otherwise have been taken if the system had been operating normally.

   iii. Stack volumetric flow rate will be estimated using engineering judgment.

g. If any one or more than one analyzer is/are not operating for a period of less than 24 hours, one of the following must be done: (i) the requirements set forth for a 24-hour or greater period of downtime must be used to fill in the data gaps; or (ii) the data recorded for the five minute reading immediately preceding the affected analyzer's(s') stoppage must be used to fill in the data gap.

h. In order to secure data on a "dry basis", the permittee may either:

   i. directly measure the moisture content using a moisture analyzer,

   ii. assume the moisture content is the greater of 3% or the highest measured moisture content in any Relative Accuracy Test Audit ("RATA"); or

   iii. for saturated gas streams only, measure the stack temperature using a stack temperature sensor at the time of each SO_2 measurement and determine the moisture content using a psychometric chart or standard text water vapor pressure correlation.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) Pursuant to under 40 CFR Part 60.13 and Appendices B and F, the permittee shall maintain records of all data obtained by the continuous SO2 monitoring system including, but not limited to:

a. emissions of SO2 in parts per million for each cycle time of the analyzer;

b. emissions of SO2 in units of the applicable standard(s) in the appropriate averaging period;

c. results of quarterly cylinder gas audits;

d. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;

e. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);

f. hours of operation of the emissions unit, continuous SO2 monitoring system, and control equipment;

g. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous SO2 monitoring system;

h. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous SO2 monitoring system; as well as,

i. the reason (if known) and the corrective actions taken (if any) for each such event in (g) and (h).

[Authority for term: 40 CFR 60.13 and 40 CFR Part 60, Appendices B & F]

(6) The permittee shall comply with the applicable monitoring and recordkeeping requirements required under 40 CFR Part 60, Subpart H, including the following sections:

60.2	Defining the continuous monitoring system (CMS).
60.7(b)	Requirements for recordkeeping during startup, shutdown, malfunction or any periods during which CMS is inoperative.
60.13	Requirements to maintain on site the continuous SO2 monitoring system certification.
60.13	Requirements for a written quality assurance/quality control plan.
60.13	Requirements to operate and maintain continuous SO2 monitoring and recording equipment.
60.84(a)	Requirements for a SO2 continuous monitoring system.
60.84(b)	Requirements to establish a monitoring data conversion factor.
60.84(c)	Requirements to record monitoring data conversion factors and values.
60.84(d)	Alternate emission monitoring approach for a source that processes elemental sulfur or an ore that contains elemental sulfur and uses air to supply oxygen

(7) The permittee shall comply with the applicable monitoring and recordkeeping requirements required under 40 CFR Part 64 - Compliance Assurance Monitoring, including the following sections:

64.3(d)	The permittee shalloperate and maintain a continuous monitoring system for SO_2 in compliance with the requirements of 40 CFR Part 60, Subpart H and the applicable requirements of 40 CFR 64.3.
64.9(b)	The permittee shallmaintain records in compliance with the requirements of 40 CFR Part 60, Subpart H and the applicable requirements of 40 CFR 64.9(b).

(8) The CAM plan for this emissions unit has been developed for SO_2 emissions. The CAM performance indicator for SO_2 emissions is compliance with the short term limit (a rolling, 3-hour average of 3.5 pounds of SO_2 per ton of 100% sulfuric acid produced) as emitted from the scrubber exhaust stack and measured and recorded by the certified continuous emissions monitoring (CEM) system. When the SO_2 emissionsrate is greater than the short term limit, corrective action (including, but not limited to, an evaluation of the emissions unit and scrubber system) will be required.

Upon detecting an excursion of the short term limit, the permittee shall restore operation of the emissions unit (including the control device) 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 (such as thorough response by the computerized distribution control system), 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.h.

[Authority for term: 40 CFR Part 64]

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) 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 (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

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

(3) Pursuant to the provisions established in the federal consent decree, Section VI.48., for purposes of compliance with OAC rule 3745-31-05(D), the permittee shall submit quarterly deviation (excursion) reports that identify all deviations (excursions) of:

a. the rolling, 3-hour average of 3.5 pounds per ton of 100% sulfuric acid produced (short-term limit); and

b. the rolling, 365-day average of 2.40 pounds per ton of 100% sulfuric acid produced (long-term limit).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall comply with the applicable reporting requirements for the emissions unit and its continuous SO2 monitoring system pursuant to the provisions established in 40 CFR Part 60, Subparts A and H.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) Pursuant to 40 CFR 60.7, the permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous SO2 monitoring system:

a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR Parts 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter, documenting all instances of SO2 emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, OAC Chapter 3745-18, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s).

b. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall include the following:

i. the facility name and address;

ii. the manufacturer and model number of the continuous SO_2 and other associated monitors;

iii. a description of any change in the equipment that comprises the continuous emission rate monitoring system (CERMS), including any change to the hardware, changes to the software that may affect CERMS readings, and/or changes in the location of the CERMS sample probe;

iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;

v. the total operating time (hours) of the emissions unit;

vi. the total operating time of the continuous SO_2 monitoring system while the emissions unit was in operation;

vii. results and dates of quarterly cylinder gas audits;

viii. unless previously submitted, results and dates of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));

ix. unless previously submitted, the results of any relative accuracy test audit showing the continuous SO_2 monitor out-of-control and the compliant results following any corrective actions;

x. the date, time, and duration of any/each malfunction** of the continuous SO_2 monitoring system, emissions unit, and/or control equipment;

xi. the date, time, and duration of any downtime** of the continuous SO_2 monitoring system and/or control equipment while the emissions unit was in operation; and

xii. the reason (if known) and the corrective actions taken (if any) for each event in (b)(x) and (xi).

Each report shall address the operations conducted and data obtained during the previous calendar quarter.

* where no excess emissions have occurred or the continuous monitoring system(s) has/have not been inoperative, repaired, or adjusted during the calendar quarter, such information shall be documented in the EER quarterly report

** each downtime and malfunction event shall be reported regardless if there is an exceedance of any applicable limit

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) The permittee shall comply with the applicable reporting requirements required under 40 CFR Part 60, Subpart H, including the following sections:

60.7	Quarterly reporting requirements for the emissions unit and its continuous SO2 monitoring system
60.7	Quarterly data assessment reports.
60.84(d)	Definition of exceedance periods.

(7) The permittee shall submit semiannual reports and other such notifications and reports via the air services component of the Ohio EPA's eBusiness Center as are required pursuant to 40 CFR Part 64 - Compliance Assurance Monitoring, including the following sections:

64.9	The permittee shallsubmit semiannual reports identifying any deviation from the CAM compliance requirements. These reports shall include, at a minimum, the information required under 40 CFR 64.9(a).

(8) These deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

[Authority for term: OAC 3745-77-07(C)(1)]

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

[Authority for term: OAC 3745-77-07(C)(1)]

f) Testing Requirements

(1) Ongoing compliance with the SO2 emission limitations contained in this permit shall be demonstrated through the data collected as required in the monitoring and record keeping section of this permit, and through demonstration of compliance with the quality assurance/quality control plan;which shall meet the testing and recertification requirements of 40 CFR Part 60.

[Authority for term: 40 CFR 60.13 and 40 CFR Part 60, Appendices B & F]

(2) The permittee shall comply with the Quality Assurance Requirements of 40 CFR Part 60, Appendix F.

[Authority for term: OAC rule 3745-77-07(C)(1)]

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

a. Emission Limitation:

7.41 pounds per hour of CO

Applicable Compliance Method:

This emission limitation was developed based on calculations using emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-1 dated 7/98, as follows: divide the emission factor for natural gas combustion (84 pounds of CO per million standard cubic feet of natural gas) by a heating value of 1020 Btu per standard cubic foot and multiply by the maximum installed burner heat input capacity (90 mmBtu per hour).

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods and procedures specified in Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A. Alternate, equivalent methods may be used upon approval by the Toledo Division of Environmental Services.

b. Emission Limitation:

32.46 tons per year of CO

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated by multiplying the hourly allowable emission limitation (7.41 pounds per hour) by a maximum operating schedule of 8760 hours per year, and then dividing by 2000 pounds per ton. Therefore, provided compliance is shown with the hourly emissions limitation, compliance shall also be shown with the annual emission limitation.

c. Emission Limitation:

5.90 pounds per hour of NOx

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated by using a worst case operating scenario of a company supplied maximum exhaust gas flow rate of 27,000 scfm with a concentration of 30 ppmv of NOx (as NO2 at 46 lb/lb-mole) and a mole volume of 1 lb-mole = 379 scf.

If required, compliance shall be demonstrated by Methods 1 through 4 and Method 7 of 40 CFR Part 60, Appendix A. Alternate, equivalent methods may be used upon approval by the Toledo Division of Environmental Services.

The most recent stack testing for this emission unit, as performed on December 6, 2011, determined an emissions rate of 4.27 pounds as NO_2 per hour.

d. Emission Limitation:

25.85 tons per year of NOx

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated by multiplying the hourly allowable emission limitation (5.90 pounds per hour) by a maximum operating schedule of 8760 hours per year, and then dividing by 2000 pounds per ton. Therefore, provided compliance is shown with the hourly emissions limitation, compliance shall also be shown with the annual emission limitation.

e. Emission Limitation:

3.5 pounds of SO_2 per ton of 100% sulfuric acid produced as a rolling, 3-hour average

4.0 pounds of SO_2 per ton of 100% sulfuric acid produced as a rolling, 3-hour average

Applicable Compliance Method:

Compliance shall be demonstrated based upon the monitoring and record keeping requirements specified in d).

If required, compliance shall be demonstrated by Methods 1 through 4 and Method 8 of 40 CFR Part 60 Appendix A and the procedures specified in 40 CFR 60.85(b). Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA.

f. Emission Limitation:

2.40 pound of SO_2 per ton of 100% sulfuric acid produced as a rolling 365-day average

Applicable Compliance Method:

Compliance shall be demonstrated based upon the monitoring and record keeping requirements specified in d).

g. Emission Limitation:

90.5 pounds per hour of SO_2 as a rolling, 3-hour average

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated by multiplying the rolling, 3-hour average hourly SO_2 emission limitation (3.5 lb SO_2/ton H_2SO_4) by the maximum hourly production rate (in tons of H_2SO_4 per hour).

If required, compliance shall be demonstrated by Methods 1 though 4 and Method 8 of 40 CFR Part 60 Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA.

h. Emission Limitation:

271.8 tons of SO2 as a rolling, 365-day summation

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated by multiplying the rolling, 365-day average hourly SO2 emission limitation of 2.40pounds of SO_2/ton of H_2SO_4 by the maximum hourly production rate (in tons of H_2SO_4 per hour) and by a maximum operating schedule of 8760 hours per year, and then dividing by 2000 pounds per ton. Therefore, provided compliance is shown with the rolling, 365-day average hourly SO2 emission limitation, compliance shall also be shown with the annual emission limitation.

i. Emission Limitation:

3.88 pounds per hour of sulfuric acid mist

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated by multiplying the 0.15 pound of acid mist per ton of 100% sulfuric acid producedemission limitation by the maximum hourly production rate (in tons of H_2SO_4 per hour).

If required, compliance shall be demonstrated by Methods 1 through 4 and Method 8 of 40 CFR Part 60, Appendix Aand the procedures specified in 40 CFR 60.85(b). Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA.

j. Emission Limitation:

17.0 tpy of sulfuric acid mist

Applicable Compliance Method:

The annual sulfuric acid mist emission limitation was developed by multiplying the hourly allowable emission limitation of 3.88 pounds per hour by a maximum operating schedule of 8760 hours per year, and then dividing by 2000 pounds per ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

k. Emission Limitation:

0.075 kg H_2SO_4 per metric ton of 100 percent sulfuric acid produced (0.15 lb per ton)

Applicable Compliance Method:

If required, compliance shall be demonstrated by the procedures specified in 40 CFR 60.85(b).

The most recent stack testing for this emissions unit, as performed on June 9, 2011, determined an emission rate of 0.091 pound of H2SO4 per ton of 100 percent sulfuric acid produced

l. Emission Limitation:

10 percent opacity

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing methods and procedures specified in Method 9 of 40 CFR Part 60, Appendix A and the procedures of 40 CFR 60.85(b).

The most recent stack testing for this emissions unit, as performed on June 18, 2012, determined an opacity of 0.0%.

[Authority for term: OAC 3745-77-07(C)(1)]

(4) 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 every 2.5 years (the most recent stack testing for this emissions unit was performed on June 8, 2011)

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for SO_2 and acid mist, in pounds per ton of 100 percent sulfuric acid produced,

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

Methods 1 through 4 and Method 8 of 40 CFR Part 60, Appendix A and the procedures identified under 40 CFR 60.85. This test shall consist of at least three method test runs.

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 appropriate Ohio EPA District Office or local air agency. 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.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the TES. 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 TES's refusal to accept the results of the emission test(s).

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

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

[Authority for term: OAC 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

4. P002, B-Plant

Operations, Property and/or Equipment Description: sulfuric acid regeneration, B plant with dual absorption and oxygen enrichment controlled by a wet 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) 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) (P0109874 effective 2/20/2013)	Emissions of carbon monoxide (CO) from this emissions unit shall not exceed 4.12 pounds per hour and 18.05 tons per year. Emissions of nitrogen oxides (NO_x) from this emissions unit shall not exceed 3.72 pounds per hour and 16.27 tons per year Emissions of sulfur dioxide (SO_2) from this emissions unit shall not exceed a rolling, 3-hour average of 55.5 pounds per hour and 173.6 tons as a rolling, 365-day summation. Emissions of sulfuric acid mist from this emissions unit shall not exceed 2.38 pounds per hour and 10.5 tons per year. See b)(2)a. and b)(2)b.
b.	OAC rule 3745-31-05(D) (P0109874 effective 2/20/2013)	Pursuant to the provisions established in Consent Decree case 3:09-cv-00067-JGC filed on 04/02/2009and as amended 02/10/2010, Sections V.A.18. and V.C.23., the emissions from this emissions unit shall not exceed: a rolling, 3-hour average of 3.5 pounds of SO2 per ton of 100% sulfuric acid produced (short-term limit);

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		a rolling, 365-day average of 2.50 pounds of SO2 per ton of 100% sulfuric acid produced (long-term limit); and, 0.15 pound of acid mist, expressed as H_2SO_4, per ton of 100% sulfuric acid produced. See b)(2)c. through b)(2)f.
c.	OAC rule 3745-17-07(A)(1)	See b)(2)g.
d.	OAC rule 3745-17-11(B)(1)	See b)(2)g. and b)(2)h.
e.	OAC rule 3745-18-54(X)	See b)(2)g.
f.	40 CFR Part 60, Subpart A (60.1 through 60.19)	40 CFR Part 60, Subpart A provides applicability provisions, definitions, and other general provisions that are applicable to this emissions unit. See b)(2)i. through b)(2)l.
g.	40 CFR Part 60, Subpart H (40 CFR 60.80-85) [In accordance with 40 CFR 60.82(a) and 60.83(a), this emissions unit is a sulfuric acid production facility *subject to the emission limitation and control measures specified in these sections.]*	See b)(2)m.
h.	40 CFR Part 64 [In accordance with 40 CFR 64.2(a), this emissions unit is a pollutant specific emissions unit located at a major source required to obtain a Title V permit, is subject to a particulate emission standard, uses a control device to achieve compliance with the emission standard, and has potential pre-control device particulate emissions greater than 100 tons per year.]	A CAM plan for this emissions unit has been developed for SO2 emissions as presented in see d)(7) and d)(8).

(2) Additional Terms and Conditions

a. The hourly and annual emissions limitations for CO and NOx were established for PTI purposes to reflect the potential to emit for this emissions unit while combusting natural gas. Therefore, it is not necessary to develop monitoring,

record keeping and/or reporting requirements to ensure compliance with these limitations.

b. The hourly and annual emissions limitations for SO_2 and sulfuric acid mist were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop monitoring, record keeping and/or reporting requirements to ensure compliance with these limitations.

c. Pursuant to the provisions established in the federal consent decree, Section III.8., the following definitions shall apply to the terms and conditions of this emissions unit:

i. “Long-term limit” shall mean a rolling, 365-day average SO_2 emissions limit expressed as pounds of SO_2 emitted per ton of 100% H_2SO_4 produced. Compliance with the long-term limit shall be calculated in accordance the requirements of this permit. The long-term limit shall apply at all times, including during periods of startup, shutdown, or malfunction.

ii. “Short-term limit” shall mean a rolling, 3-hour average SO_2 emissions limit expressed as pounds of SO_2 emitted per ton of 100% H_2SO_4 produced. Compliance with the short-term limit shall be calculated in accordance the requirements of this permit. The short-term limit does not apply during periods of startup, shutdown, or malfunction.

iii. “Startup" means the period of time beginning when the feed of sulfur-bearing compounds to the furnace commences and lasting for no more than 24 hours.

iv. “Sulfur-bearing compounds” means elemental sulfur, alkylation or other spent sulfuric acids, hydrogen sulfide, organic sulfides, mercaptans, or acid sludge, but they exclude hydrocarbon and conventional fossil fuels such as natural gas or fuel oil.

v. "Shutdown" means the cessation of operation of a sulfuric acid plant for any reason. Shutdown begins at the time the feed of sulfur-bearing compounds to the furnace ceases and ends at the earlier of three hours later or when the flow rate on the stack volumetric flow rate analyzer falls below 10% span.

vi. "Malfunction" means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused by poor maintenance or careless operation are not malfunctions.

d. Pursuant to the provisions established in the federal consent decree, Amended Appendix G, page 6 - Analyzer Specifications, dated February 10, 2010:

i. the permittee shall maintain and operate a volumetric flow rate analyzer which meets the applicable requirements of 40 CFR Part 60, Appendix B,

Performance specification 6 and the Quality Assurance and Quality Control Procedures in 40 CFR Part 60, Appendix F, Procedure 1;

ii. the permittee shall maintain and operate a converter inlet SO_2 analyzer which meets the applicable requirements of Performance Specification 2 of 40 CFR Part 60, Appendix B and the Quality Assurance and Quality Control Procedures in 40 CFR Part 60, Appendix F, Procedure 1; and

iii. the permittee shall maintain and operate a discharge stack SO_2 analyzer which meets the applicable requirements of 40 CFR Part 60.11, 60.13, Performance Specification 2 of 40 CFR Part 60, Appendix B, and the Quality Assurance and Quality Control Procedures in 40 CFR Part 60, Appendix F, Procedure 1.

e. Pursuant to the provisions established in the federal consent decree, Section VI.48., SO2 and acid mist emissions limitations of section b)(1)b. shall not be relaxed.

f. Pursuant to 40 CFR Part 60, Subpart H, the following provisions will be an approved alternateas established in the February 10, 2010 amendment to Appendix G of the federal consent decree, “Analyzer Specifications” and “Compliance with the NSPS 40 CFR Part 60, Subpart H”:

i. The optimum location to obtain SO2 readings may differ from the requirements of Performance Specification 2, Section 8.1.

ii. The permittee shall conduct quarterly cylinder gas audits on the converter SO2 analyzer in lieu of the annual RATA described in Appendix F, Section 5.1.1.

iii. The required 40 CFR 60.84(a) stack SO2 analyzer span value shall become a dual range of 0 to 500 ppm (normal) and 0 to 3,600 ppm (during startup, shutdown and/or malfunction).

iv. The required 40 CFR 60.84(b) procedure for converting monitoring data shall become the procedures stated in this permit for calculating compliance the NSPS 3-hour average emissions limitation

g. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

h. All particulate emissions from this emissions unit are emitted in the form of sulfuric acid mist.

i. In compliance with the requirements of 40 CFR 60.2: the continuous emission monitoring system consists of all the equipment used to acquire data to provide a record of emissions and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

j. In compliance with the requirements of 40 CFR 60.8(c): emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction shall not be considered a violation of the applicable emission limit.

k. In compliance with the requirements of 40 CFR 60.11(d): at all times, including periods of startup, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate any affected emissions unit including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used shall be based on information available to the Director which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

l. In compliance with the requirements of 40 CFR 60.13and 40 CFR Part 60, Appendix F: the permittee shall maintain a written quality assurance/quality control plan for the continuous SO_2 monitoring system, designed to ensure continuous valid and representative readings of SO_2 emissions from the continuous monitor(s), in units of the applicable standard(s). The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous SO_2 monitoring system must be kept on site and available for inspection during regular office hours.

The plan shall include the requirement to conduct quarterly cylinder gas audits or relative accuracy audits as required in 40 CFR Part 60; and to conduct relative accuracy test audits in units of the standard(s), in accordance with and at the frequencies required per 40 CFR Part 60.

m. In compliance with the requirements of 40 CFR 60.82 and 60.83: at all times except for periods of startup, shutdown, and malfunction, the permittee shall not cause to be discharged into the atmosphere any gases which:

i. contain sulfur dioxide in excess of 2 kilograms per metric ton of acid produced (4 pounds per ton), the production being expressed as 100 percent H_2SO_4;

ii. contain acid mist, expressed as H_2SO_4, in excess of 0.075 kilograms per metric ton of acid produced (0.15 pound per ton), the production being expressed as 100 percent H_2SO_4; and

iii. exhibit 10 percent opacity or greater.

c) Operational Restrictions

(1) The permittee shall burn only natural gas as fuel in this emissions unit.

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

d) Monitoring and/or Recordkeeping Requirements

(1) For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

[Authority for term: OAC 3745-77-07(C)(1)

(2) 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 emission incident; and

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) In compliance with the requirements of 40 CFR 60.13 and 40 CFR Part 60, Appendix B: the permittee shall maintain on-site, the document of certification received from the U.S. EPA or the Ohio EPA's Central Office documenting that the continuous SO_2 monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 2. The letter/document of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

(4) Pursuant to the provisions established in the federal consent decree in the February 10, 2010 amendment to Appendix G, "Emissions Calculations", for purposes of compliance with OAC rule 3745-31-05(D), permittee shall comply with the following requirements:

a. SO_2 emissions will be monitored using an SO_2 analyzer at the converter inlet, an SO_2 analyzer at the exit stack, and a stack flow rate analyzer. Except for any analyzer malfunctions, associated repairs, and required quality assurance or control activities (including calibration checks and required zero and span adjustments), the permittee will conduct monitoring during all operating periods and during shutdown. The combination of SO_2 emission monitors and flow monitor will be identified in this permit as the SO_2 continuous emission monitoring system (CERMS).

b. Once every five (5) minutes, the analyzers will measure the stack SO2 concentration (fraction, dry basis), the converter inlet SO2 concentration

(fraction, dry basis) and the volumetric flow rate (dry standard cubic feet per minute).

c. For purposes of calculating a rolling, 3-hour average the system will maintain an array of the 36 most recent measurements for each of the three monitored parameters. Every five minutes, the system will add the most recent readings to the array and exclude the oldest readings. The rolling, 3-hour average pound of SO_2 per ton of 100% H_2SO_4 emissions rate shall be calculated as follows:

$$E_{3\text{-hr ave}} = (1306.33 \text{ lb } SO_2/\text{ton acid}) \sum_{i=0}^{36} [(Q_{\text{stack } i})(B_i)(1-1.5A_i) \div (A_i - B_i)]$$

where:

A_i = converter inlet SO_2 concentration as a decimal fraction on a dry basis at measurement "i"

B_i = stack inlet concentration as a decimal fraction on a dry basisat measurement "i"

$E_{3\text{-hr ave}}$ = the 3-hour average SO_2 emission rate in units of pounds of SO_2 per ton of 100% H_2SO_4

$Q_{\text{stack } i}$ = volumetric flow rate of stack gas in units of dry standard cubic feet per minute (dscfm)at measurement "i"

d. For purposes of calculating a rolling, 365-day average the system will maintain an array of all of the measurements for each of the three monitored parameters for 365 days. Every day, the system will add the readings from that day to the array and exclude the readings from the oldest day. The rolling, 365-day average pound of SO_2 per ton of 100% H_2SO_4 emissions rate shall be calculated as follows:

$$E_{365\text{-day ave}} = (1306.33 \text{ lb } SO_2/\text{ton}) \sum_{j=1}^{n} [(\text{Qstack j})(\text{Bj})(1-1.5\text{Aj}) \div (\text{Aj}-\text{Bj})]$$

where:

Aj = converter inlet SO_2 concentration as a decimal fraction on a dry basis at measurement "j"

Bj = stack inlet concentration as a decimal fraction on a dry basisat measurement "j"

$E_{365\text{-day ave}}$ = the rolling, 365-day average SO_2 emission rate in units of pounds of SO_2 per ton of 100% H_2SO_4

n = the number of measurements taken at 5-minute intervals over the 365 day period.

Qstack j = volumetric flow rate of stack gas in units of dry standard cubic feet per minute (dscfm)at measurement "j"

e. During routine calibration checks and adjustments of any of the analyzers, the pre-calibration will be used to fill in any analyzer gaps that occur pending completion of the calibration checks and adjustments.

f. If any one or more than one analyzer is/are not operating for a period of 24 hours or greater, data gaps in the array involving the non-operational analyzer(s) will be filled in as follows:

   i. Exit stack gas will be sampled and analyzed for SO_2 at least once per hour, during all operating periods. Sampling will be conducted by Reich test or other established method (e.g. portable analyzer). The most recent hourly reading will be substituted for the twelve (12) five-minute readings that would otherwise have been taken if the analyzer had been operating normally.

   ii. Converter inlet gas either will be sampled and analyzed for SO_2 using a Reich test or other established method, or the concentration will be estimated using engineering judgment, at least once every four (4) hours during all opperating periods. The most recent four-hour measurement/estimate will be substituted for the 48 five-minute readings that would otherwise have been taken if the system had been operating normally.

   iii. Stack volumetric flow rate will be estimated using engineering judgment.

g. If any one or more than one analyzer is/are not operating for a period of less than 24 hours, one of the following must be done: (i) the requirements set forth for a 24-hour or greater period of downtime must be used to fill in the data gaps; or (ii) the data recorded for the five minute reading immediately preceding the affected analyzer's(s') stoppage must be used to fill in the data gap.

h. In order to secure data on a "dry basis", The permittee may either:

   i. directly measure the moisture content using a moisture analyzer,

   ii. assume the moisture content is the greater of 3% or the highest measured moisture content in any Relative Accuracy Test Audit ("RATA"); or

   iii. for saturated gas streams only, measure the stack temperature using a stack temperature sensor at the time of each SO_2 measurement and determine the moisture content using a psychometric chart or standard text water vapor pressure correlation.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) Pursuant to under 40 CFR Part 60.13 and Appendices B and F, the permittee shall maintain records of all data obtained by the continuous SO2 monitoring system including, but not limited to:

a. emissions of SO2 in parts per million for each cycle time of the analyzer;

b. emissions of SO2 in units of the applicable standard(s) in the appropriate averaging period;

c. results of quarterly cylinder gas audits;

d. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;

e. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);

f. hours of operation of the emissions unit, continuous SO2 monitoring system, and control equipment;

g. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous SO2 monitoring system;

h. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous SO2 monitoring system; as well as,

i. the reason (if known) and the corrective actions taken (if any) for each such event in (g) and (h).

[Authority for term: 40 CFR 60.13 and 40 CFR Part 60, Appendices B & F]

(6) The permittee shall comply with the applicable monitoring and recordkeeping requirements required under 40 CFR Part 60, Subpart H, including the following sections:

60.2	Defining the continuous monitoring system (CMS).
60.7(b)	Requirements for recordkeeping during startup, shutdown, malfunction or any periods during which CMS is inoperative.
60.13	Requirements to maintain on site the continuous SO2 monitoring system certification.
60.13	Requirements for a written quality assurance/quality control plan.
60.13	Requirements to operate and maintain continuous SO2 monitoring and recording equipment.
60.84(a)	Requirements for a SO2 continuous monitoring system.
60.84(b)	Requirements to establish a monitoring data conversion factor.
60.84(c)	Requirements to record monitoring data conversion factors and values.
60.84(d)	Alternate emission monitoring approach for a source that processes elemental sulfur or an ore that contains elemental sulfur and uses air to supply oxygen

(7) The permittee shall comply with the applicable monitoring and recordkeeping requirements required under 40 CFR Part 64 - Compliance Assurance Monitoring, including the following sections:

64.3(d)	The permittee shalloperate and maintain a continuous monitoring system for SO_2 in compliance with the requirements of 40 CFR Part 60, Subpart H and the applicable requirements of 40 CFR 64.3.
64.9(b)	The permittee shallmaintain records in compliance with the requirements of 40 CFR Part 60, Subpart H and the applicable requirements of 40 CFR 64.9(b).

(8) The CAM plan for this emissions unit has been developed for SO_2 emissions. The CAM performance indicator for SO_2 emissions is compliance with the short term limit (a rolling, 3-hour average of 3.5 pounds of SO_2 per ton of 100% sulfuric acid produced) as emitted from the scrubber exhaust stack and measured and recorded by the certified continuous emissions monitoring (CEM) system. When the SO_2 emissionsrate is greater than the short term limit, corrective action (including, but not limited to, an evaluation of the emissions unit and scrubber system) will be required.

Upon detecting an excursion of the short term limit, the permittee shall restore operation of the emissions unit (including the control device) 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 (such as thorough response by the computerized distribution control system), 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.h.

[Authority for term: 40 CFR Part 64]

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) 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 (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

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

(3) Pursuant to the provisions established in the federal consent decree, Section VI.48., for purposes of compliance with OAC rule 3745-31-05(D), The permittee shall submit quarterly deviation (excursion) reports that identify all deviations (excursions) of:

a. the rolling, 3-hour average of 3.5 pounds per ton of 100% sulfuric acid produced (short-term limit); and

b. the rolling, 365-day average of 2.50 pounds per ton of 100% sulfuric acid produced (long-term limit).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) Pursuant to 40 CFR 60.7, the permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous SO_2 monitoring system:

a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR Parts 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency, documenting all instances of SO_2 emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, OAC Chapter 3745-18, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s).

b. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall include the following:

i. the facility name and address;

ii. the manufacturer and model number of the continuous SO_2 and other associated monitors;

iii. a description of any change in the equipment that comprises the continuous emission monitoring system (CEMS), including any change to

the hardware, changes to the software that may affect CEMS readings, and/or changes in the location of the CEMS sample probe;

iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;

v. the total operating time (hours) of the emissions unit;

vi. the total operating time of the continuous SO_2 monitoring system while the emissions unit was in operation;

vii. results and dates of quarterly cylinder gas audits;

viii. unless previously submitted, results and dates of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));

ix. unless previously submitted, the results of any relative accuracy test audit showing the continuous SO_2 monitor out-of-control and the compliant results following any corrective actions;

x. the date, time, and duration of any/each malfunction** of the continuous SO_2 monitoring system, emissions unit, and/or control equipment;

xi. the date, time, and duration of any downtime** of the continuous SO_2 monitoring system and/or control equipment while the emissions unit was in operation; and

xii. the reason (if known) and the corrective actions taken (if any) for each event.

Each report shall address the operations conducted and data obtained during the previous calendar quarter.

* where no excess emissions have occurred or the continuous monitoring system(s) has/have not been inoperative, repaired, or adjusted during the calendar quarter, such information shall be documented in the EER quarterly report

** each downtime and malfunction event shall be reported regardless if there is an exceedance of any applicable limit

[Authority for term: OAC 3745-77-07(C)(1)

(5) The permittee shall comply with the applicable reporting requirements required under 40 CFR Part 60, Subpart H, including the following sections:

60.7	Quarterly reporting requirements for the emissions unit and its continuous SO2 monitoring system
60.7	Quarterly data assessment reports.
60.84(d)	Definition of exceedance periods.

(6) These deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

[Authority for term: OAC 3745-77-07(C)(1)]

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

[Authority for term: OAC 3745-77-07(C)(1)]

f) Testing Requirements

(1) Ongoing compliance with the SO_2 emission limitations contained in this permitshall be demonstrated through the data collected as required in the monitoring and record keeping section of this permit, and through demonstration of compliance with the quality assurance/quality control plan: which shall meet the testing and recertification requirements of 40 CFR Part 60.

[Authority for term: 40 CFR 60.13 and 40 CFR Part 60, Appendices B & F]

(2) The permittee shall comply with the Quality Assurance Requirements of 40 CFR Part 60, Appendix F.

[Authority for term: OAC rule 3745-77-07(C)(1)]

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

a. Emission Limitation:

4.12 pounds per hour of CO

Applicable Compliance Method:

This emission limitation was developed based on calculations using emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-1 dated 7/98, as follows: divide the emission factor for natural gas combustion (84 pounds of CO per million standard cubic feet of natural gas) by a heating value of 1020 Btu per standard cubic foot and multiply by the maximum installed burner heat input capacity (50 mmBtu per hour).

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods and procedures specified in Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A. Alternate, equivalent methods may be used upon approval by the Toledo Division of Environmental Services.

b. Emission Limitation:

18.05 tons per year of CO

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated by multiplying the hourly allowable emission limitation (4.12 pounds per hour) by a maximum operating schedule of 8760 hours per year, and then dividing by 2000 pounds per ton. Therefore, provided compliance is shown with the hourly emissions limitation, compliance shall also be shown with the annual emission limitation.

c. Emission Limitation:

3.72 pounds per hour of NOx

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated by using a worst case operating scenario of a company supplied maximum exhaust gas flow rate of 17,000 scfm with a concentration of 30 ppmv of NO_x (as NO_2 at 46 lb/lb-mole) and a mole volume of 1 lb-mole = 379 scf.

If required, compliance shall be demonstrated by Methods 1 through 4 and Method 7 of 40 CFR Part 60, Appendix A. Alternate, equivalent methods may be used upon approval by the Toledo Division of Environmental Services.

The most recent stack testing for this emission unit, as performed on December 6, 2011, determined an emissions rate of 2.75 pounds as NO_2 per hour.

d. Emission Limitation:

16.27 tons per year of NOx

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated by multiplying the hourly allowable emission limitation (3.72 pounds per hour) by a maximum operating schedule of 8760 hours per year, and then dividing by 2000 pounds per ton. Therefore, provided compliance is shown with the hourly emissions limitation, compliance shall also be shown with the annual emission limitation.

e. Emission Limitation:

3.5 pounds of SO_2 per ton of 100% sulfuric acid produced as a rolling, 3-hour average

4.0 pounds of SO_2 per ton of 100% sulfuric acid produced as a rolling, 3-hour average

Applicable Compliance Method:

Compliance shall be demonstrated based upon the monitoring and record keeping requirements specified in d).

If required, compliance shall be demonstrated by Methods 1 through 4 and Method 8 of 40 CFR Part 60 Appendix A and the procedures specified in 40 CFR 60.85(b). Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA.

The most recent stack testing for this emissions unit, as performed on June 8, 2011, determined an emission rate of 2.17 pounds of SO_2 per ton of 100 percent sulfuric acid produced

f. Emission Limitation:

2.50 pound of SO_2 per ton of 100% sulfuric acid produced as a rolling 365-day average

Applicable Compliance Method:

Compliance shall be demonstrated based upon the monitoring and record keeping requirements specified in d).

g. Emission Limitation:

55.5 pounds per hour of SO_2 as a rolling, 3-hour average

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated by multiplying the rolling, 3-hour average hourly SO_2 emission limitation (3.5 lb SO_2/ton H_2SO_4) by the maximum hourly production rate (in tons of H_2SO_4 per hour).

If required, compliance shall be demonstrated by Methods 1 though 4 and Method 8 of 40 CFR Part 60 Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA.

h. Emission Limitation:

173.6 tons of SO2 as a rolling, 365-day summation

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated by multiplying the rolling, 365-day average hourly SO2 emission limitation of 2.50pounds of SO_2/ton of H_2SO_4

by the maximum hourly production rate (in tons of H_2SO_4 per hour) and by a maximum operating schedule of 8760 hours per year, and then dividing by 2000 pounds per ton. Therefore, provided compliance is shown with the rolling, 365-day average hourly SO2 emission limitation, compliance shall also be shown with the annual emission limitation.

i. Emission Limitation:

2.38 pounds per hour of sulfuric acid mist

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated by multiplying the 0.15 pound of acid mist per ton of 100% sulfuric acid producedemission limitation by the maximum hourly production rate (in tons of H_2SO_4 per hour).

If required, compliance shall be demonstrated by Methods 1 through 4 and Method 8 of 40 CFR Part 60, Appendix Aand the procedures specified in 40 CFR 60.85(b). Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA.

j. Emission Limitation:

10.5 tons per year of sulfuric acid mist

Applicable Compliance Method:

The annual sulfuric acid mist emission limitation was developed by multiplying the hourly allowable emission limitation of 2.38 pounds per hour by a maximum operating schedule of 8760 hours per year, and then dividing by 2000 pounds per ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

k. Emission Limitation:

0.075 kg H_2SO_4 per metric ton of 100 percent sulfuric acid produced (0.15 lb per ton)

Applicable Compliance Method:

If required, compliance shall be demonstrated by the procedures specified in 40 CFR 60.85(b).

The most recent stack testing for this emissions unit, as performed on June 8, 2011, determined an emission rate of 0.056 pound of H_2SO_4 per ton of 100 percent sulfuric acid produced.

l. Emission Limitation:

10 percent opacity

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing methods and procedures specified in Method 9 of 40 CFR Part 60, Appendix A and the procedures of 40 CFR 60.85(b).

The most recent stack testing for this emissions unit, as performed on June 18, 2012, determined an opacity of 0.0%.

[Authority for term: OAC 3745-77-07(C)(1)]

(4) 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 every 2.5 years (the most recent stack testing for this emissions unit was performed on June 8, 2011).

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for SO_2 and acid mist, in pounds per ton of 100 percent sulfuric acid produced,

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

Methods 1 through 4 and Method 8 and the procedures identified under 40 CFR 60.85. This test shall consist of at least three method test runs.

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 appropriate Ohio EPA District Office or local air agency. 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.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the TES. 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 TES's refusal to accept the results of the emission test(s).

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

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

[Authority for term: OAC 3745-77-07(C)(1)]

(5) Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the reporting requirements contained P0109874 effective 2/20/2013: f)(3)(c). The testing 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..

[Authority for term: OAC 3745-77-07(A)(3)(a)(ii)]

g) Miscellaneous Requirements

(1) None.