State of Ohio Environmental Protection Agency

Street Address:
Lazarus Gov. Center
122 S. Front Street
Columbus, OH 43215

TELE: (614) 644-3020 **FAX:** (614) 644-2329

Mailing Address:
Lazarus Gov. Center
P.O. Box 1049
Columbus, OH 43216-1049

06/08/06

CERTIFIED MAIL

RE: Final Title V Chapter 3745-77 permit

08-57-04-1333
Tate & Lyle, Dayton
Keith A. Brazzell
5600 Brentlinger Drive
Dayton, OH 45414-3597

Dear Keith A. Brazzell:

Enclosed is the 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.

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 Pollution Prevention at (614) 644-3469.

You are hereby notified that this action of the Director is final 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. It must be filed with the Environmental Review Appeals Commission within thirty (30) days after notice of the Director's action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. It is also requested by the Director that a copy of the appeal be served upon the Environmental Enforcement Section of the Office of the Attorney General. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

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

If you have any questions, please contact RAPCA.

Sincerely,

Michael W. Ahern

Michael W. Ahern
Permit Issuance and Data Management Section
Division of Air Pollution Control

cc: RAPCA
File, DAPC PIER

State of Ohio Environmental Protection Agency

FINAL TITLE V PERMIT

Issue Date: **06/08/06**	Effective Date: **06/29/06**	Expiration Date: **06/29/11**

This document constitutes issuance of a Title V permit for Facility ID: 08-57-04-1333 to:
Tate & Lyle, Dayton
5600 Brentlinger Drive
Dayton, OH 45414-3597

Emissions Unit ID (Company ID)/Emissions Unit Activity Description

B001 (Zurn Boiler #1)
77.24 MMBtu/hr natural gas-fired or #2 fuel oil-fired boiler

B002 (Zurn Boiler #2)
77.24 MMBtu/hr natural gas-fired or #2 fuel oil-fired boiler, or 54.3 MMBtu/hr used oil-fired boiler

B004 (Temporary Boiler #2)
72 MMBtu/hr natural gas-fired or #2 fuel oil-fired steam generating unit

P004 (Citric Acid Dryer/Cooler)
Citric acid dryer/cooler (9T2)

You will be contacted approximately eighteen (18) months prior to the expiration date regarding the renewal of this permit. If you are not contacted, please contact the appropriate Ohio EPA District Office or local air agency listed below. 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. 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, provided that a complete renewal application is submitted no earlier than eighteen (18) months and no later than one-hundred eighty (180) days prior to the expiration date.

Described below is the current Ohio EPA District Office or local air agency that is responsible for processing and administering your Title V permit:

RAPCA
117 South Main Street
Dayton, OH 45422-1280
(937) 225-4435

Ohio Environmental Protection Agency

Joseph P. Koncelik
Director

PART I - GENERAL TERMS AND CONDITIONS

A. State and Federally Enforceable Section

1. 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 A.III of Part III of this Title V permit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:

i. The date, place (as defined in the permit), and time of sampling or measurements.

ii. The date(s) analyses were performed.

iii. The company or entity that performed the analyses.

iv. The analytical techniques or methods used.

v. The results of such analyses.

vi. 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:

i. **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 General Term and Condition A.1.c.ii below; and each report shall cover the previous calendar quarter.

In accordance with OAC rule 3745-15-06, a malfunction reportable under OAC rule 3745-15-06(B) constitutes a violation of an emission limitation (or control requirement) and, therefore, 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))

ii. **Except as may otherwise be provided in the terms and conditions for a specific emissions unit, i.e., in Section A.IV of Part III of this Title V permit or, in some cases, in Part II 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 General 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 General Term and Condition.

See B.6 below if no deviations occurred during the quarter.
(Authority for term: OAC rule 3745-77-07(A)(3)(c))

iii. **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 General Term and Condition A.1.c.ii 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; General Terms and Conditions: A.2, A.3, A.4, A.6.e, A.7, A.12, A.14, A.18, A.19, A.20, and A.22 of Part I of this Title V permit, as well as any deviations from the requirements in Section A.V or A.VI of Part III of this Title V permit**,** and any monitoring, record keeping, and reporting requirements, which are not reported in accordance with General Term and Condition A.1.c.ii 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 Part II.A 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 General Term and Condition A.1.c.ii 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))

iv. 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))

v. Reports of any required monitoring and/or record keeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
(Authority for term: OAC rule 3745-77-07(A)(3)(c))

2. 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 General Term and Condition A.1.c.i above.
(Authority for term: OAC rule 3745-77-07(A)(3)(c))

3. 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))

4. 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))

5. 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))

6. 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 A.10 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 upon final issuance of all applicable OAC Chapter 3745-35 operating permits and/or registrations for all subject emissions units located at the facility and:

i. 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

ii. 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

iii. a combination of i. and ii. above.

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))

7. 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))

8. 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))

9. 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 general terms and conditions shall apply to all operating scenarios authorized in this permit.
(Authority for term: OAC rule 3745-77-07(A)(10))

10. 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))

11. 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))

12. 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:

i. 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.

ii. 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.

iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.

iv. 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:

i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.

ii. 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:

i. 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.

ii. 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.

iii. 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))

13. 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))

14. 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))

15. 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))

16. 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))

17. 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.)

18. 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))

19. 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))

20. 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))

21. 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)

22. 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))

B. ***State Only Enforceable Section***

1. Reporting Requirements Related to Monitoring and Record Keeping Requirements

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.)

2. Records Retention Requirements

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.

3. 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.

4. 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).

5. 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.

6. Additional Reporting Requirements When There Are No Deviations of <u>Federally Enforceable</u> Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)

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 General Term and Condition A.1.c.ii; 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.

Part II - Specific Facility Terms and Conditions

A. State and Federally Enforceable Section

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

P001 - Citric acid process
P002 - Dryer
T005 - 1B28 storage [PTI 08-0563]
T006- 1B27 storage tank [PTI 08-0563]
T007- 1B45 storage tank [PTI 08-2892]
T008- 1B44 storage tank [PTI 08-2892]
Z004- Ammonia tank

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 federally-approved versions of OAC Chapters 3745-17, 3745-18, and/or 3745-21.

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

2. The emissions of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act, from this facility shall be less than 9.9 tons/year for any single HAP and 24.9 tons/year for any combination of HAPs, based on rolling, 12-month summations.

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

3. The permittee shall collect and record each month the following information for the entire facility:

a. The total individual HAP emission rate, in tons.

b. The total combined HAP emission rate, in tons.

c. The rolling, 12- month total individual HAP emission rate for each HAP employed, in tons.

d. The rolling, 12-month total combined HAPs emission rate for all the HAPs employed, in tons.

*A listing of the HAPs can be found in Section 112 (b) of the Clean Air Act or can be obtained by contacting your Ohio EPA field office or local agency contact. This information does not have to be kept on a line-by-line basis.

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

4. The permittee shall submit quarterly deviation (excursion) reports that include the following information:

a. An identification of each month during which the rolling, 12-month individual HAP emission rate exceeded 9.9 tons, and the actual rolling, 12-month emission rate for each individual HAP for each such month (for the entire facility).

b. An identification of each month during which the rolling, 12-month total combined HAP emission rate exceeded 24.9 tons, and the actual rolling, 12-month total combined HAP emission rate for each such month (for the entire facility).

These quarterly deviation (excursion) reports shall be submitted to the Director (RAPCA) by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarter. If no deviation occurred during a calendar quarter, the permittee shall submit a report which states that no deviation occurred during the calendar quarter.

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

A. State and Federally Enforceable Section (continued)

5. The permittee shall submit annual reports that specify the individual and/or combined HAP emissions from the facility for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including the specific emission data from this facilityin the annual Fee Emission Report.

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

6. Compliance with the emission limitations in Section A.2 above shall be determined in accordance with the following methods:

a. Emission Limitation-
9.9 tons for each individual HAP/rolling, 12-month period

Applicable Compliance Method-
Compliance with the annual allowable individual HAP emission limitation above shall be based upon the record keeping requirements specified in Section A.3 above.

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

b. Emission Limitation-
24.9 tons for all HAPs combined/rolling, 12-month period

Applicable Compliance Method-
Compliance with the annual allowable combined HAPs emission limitation above shall be based upon the record keeping requirements specified in Section A.3 above.

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

B. State Only Enforceable Section

1. The following insignificant emissions units located at this facility are exempt from permit requirements because they are not subject to any applicable requirements (as defined in OAC rule 3745-77-01(H) or because they meet the "de minimis" criteria established in OAC rule 3745-15-05:

T002- nitrogen storage tank
T003- 1B23 storage tank
Z001- Emergency generator
Z002- North HCL storage tank
Z003- South HCL storage tank
Z004- Ammonia tank
Z005- HCL re-use tank
Z006- Octanol storage tank
Z007- Dextrose storage
Z008- Mycelium filtrate storage
Z009- Polished filtrate storage
Z010- Decationized citric storage
Z011- Reuse HCL tank
Z012- Reuse Citric Condensate tank
Z013- Deionized Water storage
Z014- Citric decationizer heel tank
Z015- Waste equalization tank
Z016- Waste Neutralization tank

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Zurn Boiler #1 (B001)

Activity Description: 77.24 MMBtu/hr natural gas-fired or #2 fuel oil-fired boiler

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
77.24 MM Btu/hr, natural gas/No. 2 oil-fired boiler	OAC rule 3745-31-05(A)(3) PTI 08-2281	The particulate emissions (PE) from this emissions unit shall not exceed 6.7 tons/yr. The sulfur dioxide (SO2) emissions from this emissions unit shall not exceed 271 tons/yr. The organic compound (OC) emissions from this emissions unit shall not exceed 0.43 lb/hr and 1.9 tons/yr. The nitrogen oxides (NOx) emissions from this emissions unit shall not exceed 10.4 lbs/hr and 45.5 tons/yr. The carbon monoxide (CO) emissions from this emissions unit shall not exceed 10.9 lbs/hr and 47.74 tons/yr. Visible PE from any stack shall not exceed five percent opacity, as a six-minute average. The requirements of this rule also include compliance with the requirements of OAC rules 3745-18-63(T), 3745-17-10(B)(1), 3745-23-06(B) and 3745-21-08(B).
	OAC rule 3745-17-10(B)(1)	The PE from this emissions unit shall not exceed 0.020 pounds per MM Btu actual heat input.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
	OAC rule 3745-18-63(T)	The sulfur dioxide emissions from this emissions unit shall not exceed 0.8 pounds per MM Btu actual heat input.
	OAC rule 3745-17-07(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-23-06(B) OAC rule 3745-21-08(B)	See A.I.2.b.

2. Additional Terms and Conditions

2.a The hourly OC, CO and NOx and annual SO2, PE, OC, CO, and NOx emission limitations specified in this permit were established for PTI purposes to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and reporting requirements to ensure compliance with these limitations.

2.b The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install No. 08-2281.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) 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 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

II. Operational Restrictions

1. The permittee shall burn only natural gas and/or No. 2 fuel oil in this emissions unit.

[Authority for Term: OAC rule 3745-77-07(A)(1) and PTI 08-2281]

2. The quality of oil burned in this emissions unit shall meet the following specifications on an as-received basis:

a. a sulfur content which is sufficient to comply with the allowable sulfur dioxide emission limitation of 0.8 pound of sulfur dioxide/MMBTU actual heat input; and

b. greater than 135,000 BTU/gallon of oil.

Compliance with the above-mentioned specifications shall be determined using the analytical results provided by the permittee or oil supplier for each shipment of oil.

[Authority for Term: OAC rule 3745-77-07(A)(1) and PTI 08-2281]

III. Monitoring and/or Record Keeping Requirements

1. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). (The SO2 emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).) A shipment may be comprised of multiple tank truck loads from the same supplier's batch, or may be represented by single or multiple pipeline deliveries from the same supplier's batch, and the quality of the oil for those loads or pipeline deliveries may be represented by a single batch analysis from the supplier.

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-2281]

2. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods (such as, ASTM methods D240 and D4294), or equivalent methods as approved by the director.

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-2281]

3. For each day during which the permittee burns a fuel other than natural gas and/or no. 2 fuel oil, the permittee shall maintain a record of the type and quantity of the fuel burned in this emissions unit.

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-2281]

IV. Reporting Requirements

1. The permittee shall notify the Director (the RAPCA) in writing of any record showing a deviation of the allowable sulfur dioxide emission limitation based upon the calculated sulfur dioxide emission rates from Section A.III above. The notification shall include a copy of such record and shall be sent to the Director (the RAPCA) within 45 days after the deviation occurs.

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-2281]

2. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas and/or no. 2 fule oil 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) and PTI 08-2281]

V. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.1. of these terms and conditions shall be determined in accordance with the following methods(s):

V. Testing Requirements (continued)

1.a Emission Limitation -
0.020 lb PE/mm Btu actual heat input

Applicable Compliance Method -

The permittee shall demonstrate compliance with the PE limitation above based on the results of emission testing conducted pursuant to OAC rule 3745-17-03(B)(9).

For the use of natural gas, compliance may also be based upon multiplying the maximum hourly gas burning capacity of the emissions unit (0.0757 mm cu.ft/hr) by the USEPA reference document AP-42 [Section 1.4-2 (revised 9/98)] emission factor for natural gas (1.9 lbs PE/MM cu.ft), and then dividing by the maximum hourly heat input capacity of the emissions unit (77.24 MM Btu/hr). The maximum hourly gas burning capacity is based on a natural gas heating value of 1,020 Btu/lb.

For the use of No. 2 fuel oil, compliance may also be based upon multiplying the maximum fuel oil capacity of the emissions unit (544 gallons/hr) by the AP-42 [Section 1.3-1 (revised 9/98)] emission factor for No. 2 fuel oil (2 lbs PE/1000 gallons), and then dividing by the maximum hourly heat input capacity of the emissions unit (77.24 MM Btu/hr).

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-2281]

1.b Emission Limitation -
6.7 tons PE/yr

Applicable Compliance Method -
The annual limitation above was developed by multiplying the lb/MM Btu emission limitation by maximum heat input capacity of the emissions unit (MM Btu/hr) and by the maximum operating schedule of 8760 hrs/yr, and then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the lb/MM Btu limitation, compliance shall also be shown with the annual limitation.

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-2281]

1.c Emission Limitation -
0.8 lb SO2/mm Btu actual heat input, when burning No. 2 fuel oil

Applicable Compliance Method -
Compliance shall be based upon the record keeping and analysis requirements specified in Section A.III of this permit, and the use of the equation contained in OAC rule 3745-18-04(F)(2).

If required, compliance with the SO2 limitation above shall be based upon the results of stack testing conducted in accordance with USEPA Reference Methods 1 - 4 and 6 of 40 CFR Part 60, Appendix A.

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-2281]

1.d Emission Limitation -
271 tons SO2/yr

Applicable Compliance Method(s) -
The annual limitation above was developed by multiplying the lb/MM Btu emission limitation by maximum heat input capacity of the emissions unit (MM Btu/hr) and by the maximum operating schedule of 8760 hrs/yr, and then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the lb/MM Btu limitation, compliance shall also be shown with the annual limitation.

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-2281]

V. Testing Requirements (continued)

1.e Emission Limitation -
0.43 lb/hr OC

Applicable Compliance Method -
Compliance may be determined by multiplying the USEPA reference document AP-42 [Section 1.4-2 (revised 9/98)] emission factor for natural gas (5.5 lbs OC/MM cu.ft) by the maximum hourly gas burning capacity (75,725 cu.ft/hr) of the emissions unit. The maximum hourly gas burning capacity is based on a natural gas heating value of 1,020 Btu/lb.

If required, the permittee shall demonstrate compliance with the hourly allowable OC emission limitation in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-2281]

1.f Emission Limitation -
1.9 tons OC/yr

Applicable Compliance Method(s) -
The annual emission limitation above was developed by multiplying the hourly emission limitation by the maximum operating schedule of 8760 hrs/yr, and then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual limitation.

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-2281]

1.g Emission Limitation -
10.9 lbs/hr CO

Applicable Compliance Method -
The permittee shall demonstrate compliance with the hourly allowable CO emission limitation based on the results of emission testing conducted in accordance with Methods 1 - 4 and 10 of 40 CFR Part 60, Appendix A.

Compliance may also be determined by multiplying the USEPA reference document AP-42 [Section 1.4-1 (revised 9/98)] emission factor for natural gas (84 lb CO/MM cu.ft.) by the maximum hourly gas burning capacity (75,725 cu.ft/hr) of the emissions unit. The maximum hourly gas burning capacity is based on a natural gas heating value of 1,020 Btu/lb.

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-2281]

1.h Emission Limitation -
47.74 tons CO/yr

Applicable Compliance Method(s) -
The annual emission limitation above was developed by multiplying the hourly emission limitation by the maximum operating schedule of 8760 hrs/yr, and then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual limitation.

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-2281]

V. Testing Requirements (continued)

1.i Emission Limitation -
10.4 lbs/hr NOx

Applicable Compliance Limitation -
The permittee shall demonstrate compliance with the hourly allowable NOx emission limitation based on the results of emission testing conducted in accordance with Methods 1 - 4 and 7 of 40 CFR Part 60, Appendix A.

Compliance may also be determined by multiplying the USEPA reference document AP-42 [Section 1.4-1 (revised 9/98)] emission factor for natural gas (100 lbs NOx/MM cu.ft) by the maximum hourly gas burning capacity (75,725 cu.ft/hr) of the emissions unit. The maximum hourly gas burning capacity is based on a natural gas heating value of 1,020 Btu/lb.

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-2281]

1.j Emission Limitation -
45.5 tons NOx/yr

Applicable Compliance Method -
The annual emission limitation above was developed by multiplying the hourly emission limitation by the maximum operating schedule of 8760 hrs/yr, and then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual limitation.

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-2281]

1.k Emission Limitation -
Visible PE from any stack shall not exceed five percent opacity, as a six-minute average.

Applicable Compliance Method(s) -
Compliance shall be determined by visible emission evaluations performed in accordance with USEPA Reference Method 9 of 40 CFR Part 60, Appendix A.

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-2281]

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

a. The emission testing shall be conducted within 6 months after the effective date of this permit.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for CO and NOx.

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

CO, USEPA Reference Methods 1-4 and 10 of 40 CFR Part 60, Appendix A.

NOx, USEPA Reference Methods 1-4 and 7 or 7A of 40 CFR Part 60, Appendix A.

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

d. The tests shall be conducted while the emissions unit is operating at or near maximum capacity, unless otherwise specified or approved by the RAPCA.

V. Testing Requirements (continued)

e. Not later than 60 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and dates(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 RAPCA's refusal to accept the results of the emissions tests.

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

g. A comprehensive written report on the results of the emissions test(s) shall be submitted 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 RAPCA.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Zurn Boiler #2 (B002)

Activity Description: 77.24 MMBtu/hr natural gas-fired or #2 fuel oil-fired boiler, or 54.3 MMBtu/hr used oil-fired boiler

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
77.24 MM Btu/hr, natural gas/No. 2 oil-fired boiler or 54.3 MM Btu/hr used oil-fired boiler	OAC rule 3745-31-05(A)(3) PTI 08-2281	The particulate emissions(PE) from this emissions unit shall not exceed 0.24 pound per MM Btu actual heat input (when burning recycled used oil). The PE from this emissions unit shall not exceed 57.0 tons/yr (when burning recycled, used oil). The sulfur dioxide (SO2) emissions from this emissions unit shall not exceed 190 tons/yr (when burning recycled, used oil). The PE from this emissions unit shall not exceed 6.7 tons/yr (when burning natural gas or No.2 fuel oil). The sulfur dioxide (SO2) emissions from this emissions unit shall not exceed 271 tons/yr (when burning natural gas or No.2 fuel oil). The organic compound (OC) emissions from this emissions unit shall not exceed 0.43 lb/hr and 1.9 tons/yr (when burning natural gas or No.2 fuel oil). The nitrogen oxides (NOx) emissions from this emissions unit shall not exceed 10.4 lbs/hr and 45.5 tons/yr (when burning natural gas or No.2 fuel oil).

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
		The carbon monoxide (CO) emissions from this emissions unit shall not exceed 10.9 lbs/hr and 47.74 tons/yr (when burning natural gas or No.2 fuel oil). Visible PE from any stack shall not exceed five percent opacity, as a six-minute average. The requirements of this rule also include compliance with the requirements of OAC rules 3745-18-63(T), 3745-17-10(B)(1), 3745-23-06(B) and 3745-21-08(B).
	OAC rule 3745-17-10(B)(1)	The PE from this emissions unit shall not exceed 0.020 pounds per MM Btu actual heat input (when burning natural gas or No.2 fuel oil).
	OAC rule 3745-18-63(T)	The sulfur dioxide emissions from this emissions unit shall not exceed 0.8 pounds per MM Btu actual heat input.
	OAC rule 3745-17-07(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-23-06(B) OAC rule 3745-21-08(B)	See A.I.2.b.

2. Additional Terms and Conditions

2.a The hourly OC, CO and NOx and annual SO2, PE, OC, CO, and NOx emission limitations specified in this permit were established for PTI purposes to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and reporting requirements to ensure compliance with these limitations.

2.b The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install No. 08-2281.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) 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 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

II. Operational Restrictions

1. All used oil burned in this emissions unit shall be "on-specification" (on-spec) oil and must meet the used oil fuel specifications contained in OAC 3745-279-11, which restricts the used oil to the following limitations:

Contaminant/Property	Allowable Specifications
sulfur	0.49% by weight, maximum
arsenic	5 ppm, maximum
cadmium	2 ppm, maximum
chromium	10 ppm, maximum
lead	100 ppm, maximum
total halogens	4,000 ppm maximum*
flash point	100 degrees F, minimum;

and shall also not exceed the following maximum PCB and mercury limitations nor fall below the following heating value:

heat content	135,000 Btu/gallon, minimum
PCB's	50 ppm, maximum
mercury	1 ppm, maximum

* Used oil containing more than 1,000 ppm total halogens is presumed to be a hazardous waste under the rebuttable presumption provided under paragraph (B)(1) of rule 3745-279-10 of the Administrative Code. The permittee may receive and burn used oil exceeding 1,000 ppm total halogens (but less than 4,000 ppm maximum) only if the permittee has demonstrated that the used oil does not contain any hazardous waste pursuant to OAC rule 3745-279-63.

The burning of used oil not meeting the above limitations is prohibited in this emissions unit. The management and burning of used oil is subject to the Standards for the Management of Used Oil, OAC Chapter 3745-279, and the permittee shall document and assure that used oils burned in this emissions unit meet all of the applicable requirements of this Chapter.

[Authority for Term: OAC rule 3745-77-07(A)(1) and PTI 08-2281]

2. The quality of oil burned in this emissions unit shall meet the following specifications on an as-received basis:

a. a sulfur content which is sufficient to comply with the allowable sulfur dioxide emission limitation of 0.8 pound of sulfur dioxide/MM Btu actual heat input; and

b. greater than 135,000 Btu/gallon of oil.

Compliance with the above-mentioned specifications shall be determined using the analytical results provided by the permittee or oil supplier for each shipment of oil.

[Authority for Term: OAC rule 3745-77-07(A)(1) and PTI 08-2281]

3. Pursuant to OAC rule 3745-17-10(B)(1), the total heat input for emissions unit B002, when burning recycled, used oil, is derated from 77.24 MM Btu/hr to 54.3 MM Btu/hr. At no time shall the steam flow rate from emissions unit B002, when burning recycled, used oil, exceed 41,000 pounds per hour (as an average over any one-hour period).

[Authority for Term: OAC rule 3745-77-07(A)(1) and PTI 08-2281]

4. The burning of used oil in this emissions unit shall not exceed the rate of 388 gallons/hr.

[Authority for Term: OAC rule 3745-77-07(A)(1) and PTI 08-2281]

III. Monitoring and/or Record Keeping Requirements

1. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). (The SO2 emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).) A shipment may be comprised of multiple tank truck loads from the same supplier's batch, or may be represented by single or multiple pipeline deliveries from the same supplier's batch, and the quality of the oil for those loads or pipeline deliveries may be represented by a single batch analysis from the supplier.

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-2281]

2. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods (such as, ASTM methods D240 and D4294), or equivalent methods as approved by the director.

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-2281]

3. The permittee shall receive and maintain the chemical analyses from the supplier/marketer for each shipment of used oil burned in this emissions unit, which shall contain the following information:

a. the date the used oil was received at the facility;

b. the name, address, and U.S. EPA identification number (if applicable) of the generator, transporter, processor/re-finer, supplier, and/or marketer;

c. the results of the chemical analyses demonstrating the used oil meets the standards in OAC 3745-279-11, including:

i. arsenic content, in ppm;
ii. the cadmium content, in ppm;
iii. the chromium content, in ppm;
iv. the lead content, in ppm;
v. total halogens, in ppm; and
vi. the flash point
vii. the sulfur content (%) and the calculated SO2 emissions rate (lb/mm Btu)

d. the analysis demonstrating that the used oil has a total halogen content below 1,000 ppm, or below 4,000 ppm with the demonstration for the rebuttal of the presumption that the oil is hazardous waste or has been mixed with hazardous waste, as described in OAC rule 3745-279-63 (B); and

e. the results of the analyses demonstrating that the used oil meets the heating value and mercury and PCB limitations contained in this permit.

Each analysis shall be kept in a readily accessible location for a period of not less than 3 years following the receipt of each shipment of used oil and shall be made available to the Ohio EPA Division of Hazardous Waste Management and/or the Division of Air Pollution Control (the appropriate Ohio EPA District Office or local air agency) upon verbal or written request. Any authorized representative of the Ohio EPA may sample or require sampling of any used oil shipments received, stored, or burned by/at this facility for periodic detailed chemical analyses, through an independent laboratory.

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-2281]

4. The permittee shall record and maintain hourly records of the amount of used oil, in gallons, used in this emissions unit.

III. Monitoring and/or Record Keeping Requirements (continued)

5. When burning used oil, 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.

IV. Reporting Requirements

1. The permittee shall notify the Director (the RAPCA) in writing of any record showing a deviation of the allowable sulfur dioxide emission limitation based upon the calculated sulfur dioxide emission rates from Section A.III above. The notification shall include a copy of such record and shall be sent to the Director (the RAPCA) within 45 days after the deviation occurs.

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-2281]

2. The permittee shall notify the Ohio EPA Division of Hazardous Waste Management and the Division of Air Pollution Control (the RAPCA, in writing and within 30 days, of burning any used oil exceeding the limitations found in OAC rule 3745-279-11 and/or any incident or occurrence of non-compliance with any other applicable requirement of OAC Chapter 3745-279; and shall also notify the Ohio EPA Division of Air Pollution Control, within the same amount of time, if any oil is/was burned which exceeds the mercury limitation of 1 ppm and/or is documented as having a heating value of less than 135,000 Btu/gallon.

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-2281]

3. The permittee shall submit quarterly deviation (excursion) reports, in accordance with the General Terms and Conditions of this permit, of all exceedances of the hourly restriction on the mount used oil employed of 388 gallons.

4. For the burning of used oil, the permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the RAPCA) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.1. of these terms and conditions shall be determined in accordance with the following methods(s):

V. Testing Requirements (continued)

1.a Emission Limitation -
0.020 lb PE/mm Btu actual heat input (when burning natural gas or No.2 fuel oil)

Applicable Compliance Method -

The permittee shall demonstrate compliance with the PE limitation above based on the results of emission testing conducted pursuant to OAC rule 3745-17-03(B)(9).

For the use of natural gas, compliance may also be based upon multiplying the maximum hourly gas burning capacity of the emissions unit (0.0757 mm cu.ft/hr) by the USEPA reference document AP-42 [Section 1.4-2 (revised 9/98)] emission factor for natural gas (1.9 lbs PE/MM cu.ft), and then dividing by the maximum hourly heat input capacity of the emissions unit (77.24 MM Btu/hr). The maximum hourly gas burning capacity is based on a natural gas heating value of 1,020 Btu/lb.

For the use of No. 2 fuel oil, compliance may also be based upon multiplying the maximum fuel oil capacity of the emissions unit (544 gallons/hr) by the AP-42 [Section 1.3-1 (revised 9/98)] emission factor for No. 2 fuel oil (2 lbs PE/1000 gallons), and then dividing by the maximum hourly heat input capacity of the emissions unit (77.24 MM Btu/hr).

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-2281]

1.b Emission Limitation -
6.7 tons PE/yr (when burning natural gas or No.2 fuel oil)

Applicable Compliance Method -
The annual limitation above was developed by multiplying the 0.020 lb PE/MM Btu emission limitation by maximum heat input capacity of the emissions unit (MM Btu/hr) and by the maximum operating schedule of 8760 hrs/yr, and then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the lb/MM Btu limitation, compliance shall also be shown with the annual limitation.

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-2281]

1.c Emission Limitation -
0.8 lb SO2/mm Btu actual heat input, when burning No. 2 fuel oil

Applicable Compliance Method -
Compliance shall be based upon the record keeping and analysis requirements specified in Section A.III of this permit, and the use of the equation contained in OAC rule 3745-18-04(F)(2).

If required, compliance with the SO2 limitation above shall be based upon the results of stack testing conducted in accordance with USEPA Reference Methods 1 - 4 and 6 of 40 CFR Part 60, Appendix A.

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-2281]

1.d Emission Limitation -
271 tons SO2/yr (when burning natural gas or No.2 fuel oil)

Applicable Compliance Method(s) -
The annual limitation above was developed by multiplying the lb/MM Btu emission limitation by maximum heat input capacity of the emissions unit (MM Btu/hr) and by the maximum operating schedule of 8760 hrs/yr, and then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the lb/MM Btu limitation, compliance shall also be shown with the annual limitation.

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-2281]

V. Testing Requirements (continued)

1.e Emission Limitation -
0.43 lb/hr OC (when burning natural gas or No.2 fuel oil)

Applicable Compliance Method -
Compliance may be determined by multiplying the USEPA reference document AP-42 [Section 1.4-2 (revised 9/98)] emission factor for natural gas (5.5 lbs OC/MM cu.ft) by the maximum hourly gas burning capacity (75,725 cu.ft/hr) of the emissions unit. The maximum hourly gas burning capacity is based on a natural gas heating value of 1,020 Btu/lb.

If required, the permittee shall demonstrate compliance with the hourly allowable OC emission limitation in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-2281]

1.f Emission Limitation -
1.9 tons OC/yr (when burning natural gas or No.2 fuel oil)

Applicable Compliance Method(s) -
The annual emission limitation above was developed by multiplying the hourly emission limitation by the maximum operating schedule of 8760 hrs/yr, and then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual limitation.

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-2281]

1.g Emission Limitation -
10.9 lbs/hr CO (when burning natural gas or No.2 fuel oil)

Applicable Compliance Method -
The permittee shall demonstrate compliance with the hourly allowable CO emission limitation based on the results of emission testing conducted in accordance with Methods 1 - 4 and 10 of 40 CFR Part 60, Appendix A

Compliance may also be determined by multiplying the USEPA reference document AP-42 [Section 1.4-1 (revised 9/98)] emission factor for natural gas (84 lb CO/MM cu.ft.) by the maximum hourly gas burning capacity (75,725 cu.ft/hr) of the emissions unit. The maximum hourly gas burning capacity is based on a natural gas heating value of 1,020 Btu/lb.

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-2281]

1.h Emission Limitation -
47.74 tons CO/yr (when burning natural gas or No.2 fuel oil)

Applicable Compliance Method(s) -
The annual emission limitation above was developed by multiplying the hourly emission limitation by the maximum operating schedule of 8760 hrs/yr, and then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual limitation.

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-2281]

V. Testing Requirements (continued)

1.i Emission Limitation -
10.4 lbs/hr NOx (when burning natural gas or No.2 fuel oil)

Applicable Compliance Limitation -
The permittee shall demonstrate compliance with the hourly allowable NOx emission limitation based on the results of emission testing conducted in accordance with Methods 1 - 4 and 7 of 40 CFR Part 60, Appendix A.

Compliance may also be determined by multiplying the USEPA reference document AP-42 [Section 1.4-1 (revised 9/98)] emission factor for natural gas (100 lbs NOx/MM cu.ft) by the maximum hourly gas burning capacity (75,725 cu.ft/hr) of the emissions unit. The maximum hourly gas burning capacity is based on a natural gas heating value of 1,020 Btu/lb.

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-2281]

1.j Emission Limitation -
45.5 tons NOx/yr (when burning natural gas or No.2 fuel oil)

Applicable Compliance Method -
The annual emission limitation above was developed by multiplying the hourly emission limitation by the maximum operating schedule of 8760 hrs/yr, and then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual limitation.

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-2281]

1.k Emission Limitation -
Visible PE from any stack shall not exceed five percent opacity, as a six-minute average.

Applicable Compliance Method(s) -
Compliance shall be determined by visible emission evaluations performed in accordance with USEPA Reference Method 9 of 40 CFR Part 60, Appendix A.

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-2281]

1.l Emission Limitation-
57.0 tons PE/yr (when burning recycled, used oil).

Applicable Compliance Method(s) -
The annual limitation above was developed by multiplying the 0.24 lb PE/MM Btu emission limitation by maximum heat input capacity of the emissions unit (MM Btu/hr) and by the maximum operating schedule of 8760 hrs/yr, and then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the lb/MM Btu limitation, compliance shall also be shown with the annual limitation.

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-2281]

1.m Emission Limitation -
0.24 lb PE/MM Btu actual heat input (when burning recycled, used oil).

Applicable Compliance Method -
The permittee shall demonstrate compliance with the PE limitation above based on the results of emission testing conducted in accordance with Methods 1 - 5 of 40 CFR Part 60, Appendix A.

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-2281]

V. Testing Requirements (continued)

1.n Emission Limitation -
190 tons SO2/yr (when burning recycled, used oil)

Applicable Compliance Method -
The annual limitation above was developed by multiplying the lb/MM Btu emission limitation by maximum heat input capacity of the emissions unit (54.3 MM Btu/hr) and by the maximum operating schedule of 8760 hrs/yr, and then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the lb/MM Btu limitation, compliance shall also be shown with the annual limitation.

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-2281]

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

a. The emission testing shall be conducted within 6 months after the effective date of this permit.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for CO and NOx.

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

CO, USEPA Reference Methods 1-4 and 10 of 40 CFR Part 60, Appendix A.

NOx, USEPA Reference Methods 1-4 and 7 or 7A of 40 CFR Part 60, Appendix A.

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

d. The tests shall be conducted while the emissions unit is operating at or near maximum capacity, unless otherwise specified or approved by the RAPCA.

e. Not later than 60 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and dates(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 RAPCA's refusal to accept the results of the emissions tests.

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

g. A comprehensive written report on the results of the emissions test(s) shall be submitted 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 RAPCA.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Temporary Boiler #2 (B004)

Activity Description: 72 MMBtu/hr natural gas-fired or #2 fuel oil-fired steam generating unit

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
B004 - 72 mmBtu/hr, natural gas fired steam generating unit	OAC rule 3745-31-05(A)(3) PTI 08-04334	The particulate emissions (PE) from this emissions unit shall not exceed 6.31 tons/yr. The sulfur dioxide (SO2) emissions from this emissions unit shall not exceed 0.04 lb/hr and 0.18 ton/yr. The organic compound (OC) emissions from this emissions unit shall not exceed 0.77 lb/hr and 3.38 tons/yr. The nitrogen oxides (NOx) emissions from this emissions unit shall not exceed 7.0 lbs/hr and 30.7 tons/yr. The carbon monoxide (CO) emissions from this emissions unit shall not exceed 5.88 lbs/hr and 25.8 tons/yr. Visible PE from any stack shall not exceed five percent opacity, as a six-minute average. The requirements of this rule also include compliance with the requirements of 40 CFR Part 60, Subpart Dc, OAC rules 3745-17-10(B)(1), 3745-23-06(B) and 3745-21-08(B).
	OAC rule 3745-17-07(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
	OAC rule 3745-17-10(B)(1)	The PE from this emissions unit shall not exceed 0.020 pounds per mm Btu actual heat input.
	40 CFR Part 60, Subpart Dc	See Section A.I.2. below.

2. Additional Terms and Conditions

2.a The hourly and annual OC, CO, SO2 and NOx emission limitations and annual PE limitation specified in this permit were established for PTI purposes to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and reporting requirements to ensure compliance with these limitations.

2.b Since natural gas is the only fuel fired in this emissions unit, no SO2 emission limitation is established by OAC Chapter 3745-18 for this emissions unit.

2.c Pursuant to 40 CFR Part 60, Subpart Dc, no SO2 emission limitation has been developed for this emissions unit because it burns only natural gas.

II. 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) and PTI 08-04334]

III. Monitoring and/or Record Keeping Requirements

1. The owner or operator of each affected facility shall record and maintain records of the amounts of each fuel combusted during each day.

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

IV. 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) and PTI 08-04334]

V. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.1. of these terms and conditions shall be determined in accordance with the following methods(s):

1.a Emission Limitation-
0.020 pound of PE per mmBtu actual heat input

Applicable Compliance Method-

The permittee shall demonstrate compliance with the PE limitation above based on the results of emission testing conducted pursuant to OAC rule 3745-17-03(B)(9).

Compliance may also be based upon multiplying the maximum hourly gas burning capacity of the emissions unit (0.070 mm cu.ft/hr) by the USEPA reference document AP-42 [Section 1.4-2 (revised 9/98)] emission factor for natural gas (1.9 lbs PE/MM cu.ft), and then dividing by the maximum hourly heat input capacity of the emissions unit (72.0 MM Btu/hr).

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-04334]

V. Testing Requirements (continued)

1.b Emission Limitation -
6.31 tons PE/yr

Applicable Compliance Method -
As long as compliance is maintained with the 0.020 lb PE/MM Btu limitation, compliance with the annual limitation shall be shown [the annual emission limitation was calculated by multiplying the 0.020 lb PE/MM Btu limitation by the emissions unit maximum heat input capacity (72.0 MM Btu/hr) and by 8760 hrs/yr, and then dividing by 2000 lbs/ton).

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-04334]

1.c Emission Limitation -
0.04 lb SO2/hr

Applicable Compliance Method -
Compliance may be determined by multiplying the emission factor for natural gas (0.6 lb SO2/mm cu ft), as specified in AP-42, Chapter 1.4-2 (7revised /98), by the maximum hourly gas burning capacity (0.0700 MM cu ft/hour) of the emissions unit.

If required, compliance with the SO2 limitation above shall be based upon the results of stack testing conducted in accordance with USEPA Reference Methods 1 - 4 and 6 of 40 CFR Part 60, Appendix A.

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-04334]

1.d Emission Limitation -
0.18 ton SO2/yr

Applicable Compliance Method -
As long as compliance is maintained with the hourly SO2 emission limitation, compliance with the annual limitation shall be shown (the annual emission limitation was calculated by multiplying the hourly SO2 limitation by 8760 hrs/yr, and then dividing by 2000 lb/ton).

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-04334]

1.e Emission Limitation-
7.0 lbs NOx/hour

Applicable Compliance Method -

The permittee shall demonstrate compliance with the hourly allowable NOx emission limitation based on the results of emission testing conducted in accordance with Methods 1 - 4 and 7 of 40 CFR Part 60, Appendix A.

Compliance may also be determined by multiplying the emission factor for natural gas (100 lbs NOx/mm cu ft), as specified in AP-42, Chapter 1.4-1 (revised 2/98), by the maximum hourly gas burning capacity (0.0700 mm cu ft/hour) of the emissions unit.

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-04334]

1.f Emission Limitation -
30.7 tons NOx/yr

Applicable Compliance Method -
As long as compliance is maintained with the hourly NOx emission limitation, compliance with the annual limitation shall be shown (the annual emission limitation was calculated by multiplying the hourly NOx limitation by 8760 hrs/yr, and then dividing by 2000 lb/ton).

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-04334]

V. Testing Requirements (continued)

1.g Emission Limitation -
0.77 lb OC/hour

Applicable Compliance Method -
Compliance may be determined by multiplying the emission factor for natural gas (5.5 lbs OC/mm cu ft), as specified in AP-42, Chapter 1.4-2 (7/98), by the maximum hourly gas burning capacity (0.0700 mm cu ft/hour) of the emissions unit.

If required, the permittee shall demonstrate compliance with the hourly allowable OC emission limitation in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-04334]

1.h Emission Limitation -
3.38 tons OC/yr

Applicable Compliance Method -
As long as compliance is maintained with the hourly OC emission limitation, compliance with the annual limitation shall be shown (the annual emission limitation was calculated by multiplying the hourly OC emission limitation by 8760 hrs/yr, and then dividing by 2000 lbs/ton).

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-04334]

1.i Emission Limitation -
5.88 lbs CO/hour

Applicable Compliance Method -

The permittee shall demonstrate compliance with the hourly allowable CO emission limitation based on the results of emission testing conducted in accordance with Methods 1 - 4 and 10 of 40 CFR Part 60, Appendix A

Compliance may be determined by multiplying the emission factor for natural gas (84 lbs CO/mm cu ft), as specified in AP-42, Chapter 1.4-1 (revised 2/98), by the maximum hourly gas burning capacity (0.0700 mm cu ft/hour) of the emissions unit.

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-04334]

1.j Emission Limitation -
25.8 tons CO/yr

Applicable Compliance Method -
As long as compliance is maintained with the hourly CO emission limitation, compliance with the annual limitation shall be shown (the annual emission limitation was calculated by multiplying the hourly CO limitation by 8760 hrs/yr, and then dividing by 2000 lbs/ton).

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-04334]

1.k Emission Limitation -
Visible PE from any stack shall not exceed five percent opacity, as a six-minute average.

Applicable Compliance Method(s) -
Compliance shall be determined by visible emission evaluations performed in accordance with USEPA Reference Method 9 of 40 CFR Part 60, Appendix A.

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-04334]

V. Testing Requirements (continued)

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

a. The emission testing shall be conducted within 6 months after the effective date of this permit.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for CO and NOx.

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

CO, USEPA Reference Methods 1-4 and 10 of 40 CFR Part 60, Appendix A.

NOx, USEPA Reference Methods 1-4 and 7 or 7A of 40 CFR Part 60, Appendix A.

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

d. The tests shall be conducted while the emissions unit is operating at or near maximum capacity, unless otherwise specified or approved by the RAPCA.

e. Not later than 60 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and dates(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 RAPCA's refusal to accept the results of the emissions tests.

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

g. A comprehensive written report on the results of the emissions test(s) shall be submitted 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 RAPCA.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Citric Acid Dryer/Cooler (P004)

Activity Description: Citric acid dryer/cooler (9T2)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Citric acid dryer/cooler with a wet scrubber	OAC rule 3745-31-05(A)(3) PTI 08-3938	The particulate emissions (PE) from this emissions unit shall not exceed 0.50 lb/hr and 2.19 tons/yr. The visible PE shall not exceed 5% opacity, as a 6-minute average.
	OAC rule 37454-17-11(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

2.a The lb/hr and tons/yr PE limitations specified in this permit were established for PTI purposes to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and reporting requirements to ensure compliance with these limitations.

II. Operational Restrictions

1. This emissions unit shall be continuously controlled through the application of a wet scrubber particulate control device.

[Authority for Term: OAC rule 3745-77-07(A)(1) and PTI 08-3938]

2. The pressure drop across the scrubber shall be continuously maintained at a value of not less than 10 inches of water at all times while the emissions unit is in operation.

[Authority for Term: OAC rule 3745-77-07(A)(1) and PTI 08-3938]

II. Operational Restrictions (continued)

3. The scrubber water flow rate shall be continuously maintained at a value of not less than 65 gallons per minute at all times while the emissions unit is in operation.

[Authority for Term: OAC rule 3745-77-07(A)(1) and PTI 08-3938]

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to continuously monitor the pressure drop across the scrubber and the scrubber water flow rate while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

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

a. the pressure drop across the scrubber, in inches of water, on a once per shift basis;

b. the scrubber water flow rate, in gallons per minute, on once a shift basis; and,

c. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-3938]

2. 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 limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Such records may be maintained in computerized form.

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-3938]

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all excedances of the following:

a. the static pressure drop across the scrubber; and

b. the scrubber water flow rate.

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-3938]

2. These quarterly deviation reports (excursion) reports shall be submitted to the RAPCA by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarter. If no deviation occurred during a calendar quarter, the permittee shall submit a report which states that no deviation occurred during the calendar quarter.

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-3938]

3. The permittee shall submit quarterly summary reports that include a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation. The quarterly summary reports shall be submitted by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarter.

V. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.1. of these terms and conditions shall be determined in accordance with the following methods(s):

V. Testing Requirements (continued)

1.a Emission limitation:
0.50 lb PE/hr

Applicable Compliance Method:
If required, compliance with the hourly allowable PE limitation shall be based on the results stack testing conducted in accordance with Methods 1 - 5 of 40 CFR Part 60, Appendix A.

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-3938

1.b Emission limitation:
2.19 tons PE/hr

Applicable Compliance Method:
The annual allowable PE limitation was developed by multiplying the hourly allowable PE limitation by 8760, and then dividing by 2000. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual limitation.

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-3938]

1.c Emission limitation:
Visible PE from any stack shall not exceed five percent opacity, as a six-minute average.

Applicable Compliance Method(s) -
Compliance shall be determined by visible emission evaluations performed in accordance with USEPA Reference Method 9 of 40 CFR Part 60, Appendix A.

[Authority for Term: OAC rule 3745-77-07(C)(1) and PTI 08-3938]

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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