Ohio Environmental Protection Agency
John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

10/4/2012

Certified Mail

Facility ID: 0374010235
Permit Number: P0110375
County: Seneca

Mr. Justin Raus
POET Biorefining - Fostoria
2111 Sandusky Street
Fostoria, OH 44830

RE: PRELIMINARY PROPOSED AIR POLLUTION TITLE V
Permit Type: Initial

Dear Permit Holder:

Enclosed is the Ohio EPA Preliminary Proposed Title V permit that was issued in draft form on 8/27/2012. The comment period for the Draft permit has ended. We are now ready to submit this permit to U.S. EPA for approval.

We are submitting this for your review and comment. If you do not agree with the Preliminary Proposed Title V permit as written, you now have the opportunity to raise your concerns. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Issued Air Pollution Control Permits" link. Comments will be accepted as a marked-up copy of the permit or in narrative format. Any comments must be sent to the following within 14 days of your receipt of this letter:

Andrew Hall
Permit Review/Development Section
Ohio EPA, DAPC
50 West Town Street, Suite 700
P.O. Box 1049
Columbus, Ohio 43216-1049

and

Ohio EPA DAPC, Northwest District Office
347 North Dunbridge Road
Bowling Green, OH 43402

If you believe that it is necessary to have an informal conference with us, then, as part of your written comments, you should request a conference concerning the written comments.

If comments are not submitted within 14 days of your receipt of this letter, we will forward the proposed permit to U.S. EPA for approval. All comments received will be carefully considered before proceeding with the proposed permit.

Sincerely,

Michael W. Ahern

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

Cc: Ohio EPA DAPC, Northwest District Office

Response to Comments

Facility ID:	0374010235
Facility Name:	POET Biorefining - Fostoria
Facility Description:	Industrial Organic Chemicals, n.e.c.
Facility Address:	2111 Sandusky Street Fostoria, OH 44830 Seneca County
Permit:	P0110375, Title V Permit - Initial
A public notice for the draft permit issuance was published in the Ohio EPA Weekly Review and appeared in the The Advertiser Tribune on 08/30/2012. The comment period ended on 09/29/2012.	
Hearing date (if held)	
Hearing Public Notice Date (if different from draft public notice)	

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

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

a. **No public comments received.**

Ohio | Environmental Protection Agency

PRELIMINARY PROPOSED

Division of Air Pollution Control
Title V Permit
for
POET Biorefining - Fostoria

Facility ID:	0374010235
Permit Number:	P0110375
Permit Type:	Initial
Issued:	10/4/2012
Effective:	To be entered upon final issuance
Expiration:	To be entered upon final issuance

Ohio Environmental Protection Agency

Division of Air Pollution Control
Title V Permit
for
POET Biorefining - Fostoria

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Authorization

Facility ID:	0374010235
Facility Description:	Industrial Organic Chemicals, n.e.c.
Application Number(s):	A0044336
Permit Number:	P0110375
Permit Description:	Initial Title V operating permit for an ethanol production facility, major for greenhouse gases.
Permit Type:	Initial
Issue Date:	10/4/2012
Effective Date:	To be entered upon final issuance
Expiration Date:	To be entered upon final issuance
Superseded Permit Number:	

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

POET Biorefining - Fostoria
2111 Sandusky Street
Fostoria, OH 44830

Ohio EPA District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Northwest District Office
347 North Dunbridge Road
Bowling Green, OH 43402
(419)352-8461

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Scott J. Nally
Director

A. Standard Terms and Conditions

1. Federally Enforceable Standard Terms and Conditions

a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:

(1) Standard Term and Condition A. 24., Reporting Requirements Related to Monitoring and Record Keeping Requirements of State-Only Enforceable Permit Terms and Conditions

(2) Standard Term and Condition A. 25., Records Retention Requirements for State-Only Enforceable Permit Terms and Conditions

(3) Standard Term and Condition A. 27., Scheduled Maintenance/Malfunction Reporting

(4) Standard Term and Condition A. 29., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

(Authority for term: ORC 3704.036(A))

2. Monitoring and Related Record Keeping and Reporting Requirements

a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit (i.e., in section C. Emissions Unit Terms and Conditions of this Title V permit), the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:

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

(2) The date(s) analyses were performed.

(3) The company or entity that performed the analyses.

(4) The analytical techniques or methods used.

(5) The results of such analyses.

(6) The operating conditions existing at the time of sampling or measurement.

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

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

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

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

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

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

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

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

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

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

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

Written reports of (a) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures taken, shall be promptly made to the appropriate Ohio EPA District Office or local air agency. Except as provided below, the written reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

3. Scheduled Maintenance

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

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

4. Risk Management Plans

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

a) a compliance plan for meeting the requirements of 40 C.F.R. Part 68 by the date specified in 40 C.F.R. 68.10(a) and OAC 3745-104-05(A); or

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

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

5. Title IV Provisions

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

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

6. Severability Clause

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

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

7. General Requirements

a) The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.

b) It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.

c) This permit may be modified, reopened, revoked, or revoked and reissued, for cause, in accordance with Standard Term and Condition A.11 below. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.

d) This permit does not convey any property rights of any sort, or any exclusive privilege.

e) The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

f) Except as otherwise indicated below, this Title V permit, or permit modification, is effective for five years from the original effective date specified in the permit. In the event that this facility becomes eligible for non-title V permits, this permit shall cease to be enforceable when:

(1) the permittee submits an approved facility-wide potential to emit analysis supporting a claim that the facility no longer meets the definition of a "major source" as defined in OAC rule 3745-77-01(W) based on the permanent shutdown and removal of one or more emissions units identified in this permit; or

(2) the permittee no longer meets the definition of a "major source" as defined in OAC rule 3745-77-01(W) based on obtaining restrictions on the facility-wide potential(s) to emit that are federally enforceable or legally and practically enforceable ; or

(3) a combination of (1) and (2) above.

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

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

8. Fees

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

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

9. Marketable Permit Programs

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

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

10. Reasonably Anticipated Operating Scenarios

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

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

11. Reopening for Cause

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

a) Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.

b) This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit, and shall not require a reopening of this permit.

c) The Director of the Ohio EPA or the Administrator of the U.S. EPA determines that the federally applicable requirements in this permit are based on a material mistake, or that inaccurate statements were made in establishing the emissions standards or other terms and conditions of this permit related to such federally applicable requirements.

d) The Administrator of the U.S. EPA or the Director of the Ohio EPA determines that this permit must be revised or revoked to assure compliance with the applicable requirements.

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

12. Federal and State Enforceability

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

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

13. Compliance Requirements

a) Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

b) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:

(1) At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.

(2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with paragraph (E) of OAC rule 3745-77-03.

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

(4) As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.

c) The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:

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

(2) An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

d) Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) and the Administrator of the U.S. EPA in the following manner and with the following content:

(1) Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted (i.e., postmarked) on or before April 30th of each year during the permit term.

(2) Compliance certifications shall include the following:

a. An identification of each term or condition of this permit that is the basis of the certification.

b. The permittee's current compliance status.

c. Whether compliance was continuous or intermittent.

d. The method(s) used for determining the compliance status of the source currently and over the required reporting period.

e. Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.

(3) Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

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

14. Permit Shield

a) Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC rule 3745-77-07) shall be deemed compliance with the applicable requirements identified and addressed in this permit as of the date of permit issuance.

b) This permit shield provision shall apply to any requirement identified in this permit pursuant to OAC rule 3745-77-07(F)(2), as a requirement that does not apply to the source or to one or more emissions units within the source.

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

15. Operational Flexibility

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

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

16. Emergencies

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

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

17. Off-Permit Changes

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

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

b) The permittee provides contemporaneous written notice of the change to the Director and the Administrator of the U.S. EPA, except that no such notice shall be required for changes that qualify as insignificant emissions levels or activities as defined in OAC rule 3745-77-01(U). Such written notice shall describe each such change, the date of such change, any change in emissions or pollutants emitted, and any federally applicable requirement that would apply as a result of the change.

c) The change shall not qualify for the permit shield under OAC rule 3745-77-07(F).

d) The permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.

e) The change is not subject to any applicable requirement under Title IV of the Act or is not a modification under any provision of Title I of the Act.

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

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

18. Compliance Method Requirements

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

(This term is provided for informational purposes only.)

19. Insignificant Activities or Emissions Levels

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

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

20. Permit to Install Requirement

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

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

21. Air Pollution Nuisance

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

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

22. Permanent Shutdown of an Emissions Unit

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

After the date on which an emissions unit is permanently shut down (i.e., that has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31 and therefore ceases to meet the definition of an "emissions unit" as defined in OAC rule 3745-77-01(O)), rendering existing permit terms and conditions irrelevant, the permittee shall not be required, after the date of the certification and submission to Ohio EPA, to meet any Title V permit requirements applicable to that emissions unit, except for any residual requirements, such as the quarterly deviation reports, semi-annual deviation reports and annual compliance certification covering the period during which the emissions unit last operated. All records relating to the shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law.

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

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

23. Title VI Provisions

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

a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices specified in 40 CFR 82.156.

b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment specified in 40 CFR 82.158.

c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

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

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

The permittee shall submit required reports in the following manner:

a) Reports of any required monitoring and/or record keeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.

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

25. Records Retention Requirements Under State Law Only

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

26. Inspections and Information Requests

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

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

27. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air

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

28. Permit Transfers

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

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

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

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

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

a) where an emissions unit has deviation reporting requirements for a specific emission limitation, operational restriction, or control device parameter limitation that override the deviation reporting requirements specified in Standard Term and Condition A.2.c)(2); or

b) where an uncontrolled emissions unit has no monitoring, record keeping, or reporting requirements and the emissions unit's applicable emission limitations are established at the potentials to emit; or

c) where the company's responsible official has certified that an emissions unit has been permanently shut down.

B. Facility-Wide Terms and Conditions

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

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

      (1) None.

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

      (1) None.

2. Notwithstanding any provisions to the contrary in OAC rule 3745-77, on or after January 2, 2011 Title V permits for major sources emitting greenhouse gases shall be required as provided in this rule and in 40 CFR Section 70.2, as amended (76 FR 43490, July 20, 2011). For the purpose of this rule, "CO2 equivalent emissions" and "greenhouse gases" shall have the same meaning as set forth in 40 CFR 70.2 as amended (76 FR 43490, July 20, 2011).

C. Emissions Unit Terms and Conditions

1. F001, F003

Operations, Property and/or Equipment Description:

plant roadways and parking areas

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

(1) b)(1)b.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), as effective 11/30/01 (PTI P0107584 issued 6/29/2011)	0.77 ton of fugitive particulate matter of 10 microns or less in size (PM10)/yr No visible particulate emissions (PE) except for a period of time not to exceed one minute during any 60-minute observation period Best available control measures that are sufficient enough to minimize or eliminate visible emissions of fugitive dust [See b)(2)b. through b)(2)d.] See b)(2)a.
b.	OAC rule 3745-31-05 (A)(3), as effective 12/1/06 (PTI P0107584 issued 6/29/2011)	See b)(2)e.
c.	OAC rule 3745-17-07(B)	See b)(2)f.
d.	OAC rule 3745-17-08(B)	See b)(2)g.

(2) Additional Terms and Conditions

a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan

(SIP). Therefore, until a SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirements to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, then these emission limits/control measures no longer apply.

b. The paved roadways and parking areas that are covered by this permit and subject to the above-mentioned requirements are listed below:

Paved Roadways and Parking Areas
all paved roadways and parking areas

c. The permittee shall employ best available control measures on all paved roadways and parking areas for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to sweeping paved roadways and parking areas. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

d. The needed frequencies of implementation of the control measures shall be determined by the permittee's inspections pursuant to the monitoring section of this permit. Implementation of the control measures shall not be necessary for a paved or unpaved roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for the day to ensure compliance with the above-mentioned applicable requirements. Implementation of any control measure may be suspended if unsafe or hazardous driving conditions would be created by its use.

e. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3)(a), as effective December 1, 2006, do not apply to the PM10 emissions from this air contaminant source since the calculated potential to emit (PTE) is less than 10 tons per year

Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3)(a) are not applicable to the particulate emissions from this emissions unit. BAT is only applicable to emissions of an air contaminant or precursor of an air contaminant for which a national ambient air quality standard (NAAQS) has been adopted under the Clean Air Act. Particulate emissions (also referred to as total suspended particulate or particulate matter) is an air contaminant that does not involve an established NAAQS.

f. This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(B) pursuant to OAC rule 3745-17-07(B)(11)(e).

g. This emissions unit is not located within an “Appendix A” area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B).

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) Except as otherwise provided in this section, the permittee shall perform inspections of the roadways and parking areas in accordance with the following frequencies:

Paved Roadways and Parking Areas	Minimum Inspection Frequency
all paved roadways and parking areas	once during each day of operation

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(2) The purpose of the inspections is to determine the need for implementing the above-mentioned control measures. The inspections shall be performed during representative, normal traffic conditions. No inspection shall be necessary for a roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Any required inspection that is not performed due to any of the above-identified events shall be performed as soon as such event(s) has (have) ended, except if the next required inspection is within one week.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

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

a. The date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation.

b. The date of each inspection where it was determined by the permittee that it was necessary to implement the control measures.

c. The dates the control measures were implemented.

d. On a calendar quarter basis, the total number of days the control measures were implemented and the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measures.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

e) Reporting Requirements

(1) The permittee shall submit deviation reports that identify any of the following occurrences:

a. each day during which an inspection was not performed by the required frequency, excluding an inspection which was not performed due to an exemption for snow and/or ice cover or precipitation; and

b. each instance when a control measure, that was to be implemented as a result of an inspection, was not implemented.

The deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

[OAC rule 3745-77-07(C)(1)]

(2) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #P0107584, issued on 6/29/2011: **[e)(1)]**. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

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

f) Testing Requirements

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

a. Emission Limitation:
0.77 tons of fugitive particulate matter less than 10 microns in size (PM10)/year

Applicable Compliance Method:
The PM10 limitation was determined by multiplying an AP-42 emission factor for paved roadways of 0.07 lb of PM10/VMT [Section 13.2.1 (1/11)] by a maximum of 22,004 vehicle miles traveled per year and dividing by 2000 lbs/ton.

Therefore, provided compliance is shown with the requirements of this permit to apply best available control measures, compliance with the ton per year PM10 limitation will be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

g) Miscellaneous Requirements

(1) None.

2. J001, EU036

Operations, Property and/or Equipment Description:

ethanol loading operations

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

(1) b)(1)c., b)(1)e., d)(3) through d)(6) and e)(3)

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) (PTI P0107584 issued 6/29/2011)	4.35 tons volatile organic compounds (VOC)/yr See b)(2)a.
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/01 (PTI P0107584 issued 6/29/2011)	1.32 tons nitrogen oxide (NOx)/yr 3.32 tons carbon monoxide (CO)/yr See b)(2)b.
c.	OAC rule 3745-31-05 (A)(3), as effective 12/1/06 (PTI P0107584 issued 6/29/2011)	See b)(2)c.
d.	OAC rule 3745-21-07(M)(2)	See b)(2)d.
e.	OAC rule 3745-114-01 ORC 3704.03(F)	See d)(3) through d)(6) and e)(2)

(2) Additional Terms and Conditions

a. This permit establishes the following federally enforceable emission limitations for the purpose of limiting the potential to emit (PTE) of VOC emissions to avoid Prevention of Significant Deterioration (PSD) and Title V applicability. The federally enforceable emission limitations are based on the operational restrictions contained in c)(1) which require control equipment and process control:

i. 4.35 tons VOC/year

b. The following requirements contained in this permit satisfy the BAT requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001:

i. compliance with the following limitations:

(a) 1.32 tons NOX/yr

(b) 3.32 tons CO/yr

ii. compliance with the following regulations:

(a) OAC rule 3745-31-05(D)

On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, the requirements of 3745-31-05(A)(3) as effective November 30, 2001 will no longer apply.

It should be noted that the emission limitations and control requirements established pursuant to OAC rule 3745-31-05(D) will remain applicable after the above SIP revisions are approved by U.S. EPA.

c. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3)(a), as effective December 1, 2006, do not apply to the NOx and CO emissions from this air contaminant source since the uncontrolled potential to emit for NOx and CO is less than 10 tons per year.

d. This emissions unit is exempt from the requirements specified in OAC rule 3745-21-07(M)(2) pursuant to OAC rule 3745-21-07(M)(3)(c)(iii).

c) Operational Restrictions

(1) The following operational restrictions have been included in this permit for the purpose of establishing federally enforceable requirements which limit PTE [see b)(2)a.]:

a. a flare system shall be used whenever this air contaminant source is in operation with a minimum control efficiency of 98%, by weight for VOC.

[OAC rule 3745-77-07(A)(1) and PTI P0107584]

(2) The permittee shall comply with the following restrictions on the flare controlling this emissions unit:

a. the closed vent system shall be operated at all times when emissions may be vented to it;

b. the flare shall be operated with a pilot flame . The pilot flame shall be present at all times the ethanol loading system is in operation and shall be monitored with a thermocouple or any other equivalent device to detect the presence of the pilot flame;

c. the net heating value of the gas being combusted in the flare, as determined by the method specified in paragraph (P)(2) of rule 3745-21-10 of the Administrative Code, shall be 300 Btu/scf or greater;

d. the flare shall be designed and operated with an actual exit velocity, as determined by the method specified in paragraph (P)(3) of rule 3745-21-10 of the Administrative Code, less than 60 feet per second; and,

e. the permittee shall ensure the flare is operated and maintained in conformance with its design.

[OAC rule 3745-77-07(A)(1) and PTI P0107584]

(3) The maximum annual ethanol throughput rate for this emissions unit shall not exceed 79 million gallons (includes up to 10,000,000 gallons of E85).

[OAC rule 3745-77-07(A)(1) and PTI P0107584]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall properly install, operate, and maintain a device to continuously monitor the pilot flame when the emissions unit is in operation. The monitoring device and any recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall comply with the following monitoring and record keeping requirements on the flare controlling this emissions unit:

a. the flare shall be monitored with a thermocouple or any other equivalent device to detect the presence of a pilot flame;

b. the permittee shall maintain and operate a flow indicator which provides a record of the vent stream flow to the flare;

c. the permittee shall maintain records of the following:

i. flow rate to the flare, including records of all periods when the closed vent stream is diverted from the flare or when there is no flow rate;

ii. records of all periods when the flare pilot flame is absent;

iii. periods when the closed vent system and flare are not operated as designed; and

iv. dates of start-ups and shutdowns of the closed vent system and flare; and

d. the permittee shall collect and record a daily log or record of operating time for the closed vent system, flare and monitoring equipment.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(2) The permittee shall maintain monthly records of the amount of product throughput (in gallons per month and total gallons, to date for the calendar year) for each type of product.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(3) The federally enforceable permit-to-install (FEPTI)application for these emissions unit(s), B001, B002, J001, P007, P008, P009, P010 and P012, was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

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

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

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

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

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

TLV/10 x 8/X x 5/Y = 4 TLV/XY = MAGLC

d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or "worst case" toxic contaminant(s):

Toxic Contaminant: Acetaldehyde
TLV (mg/m3): 33.2
Maximum Hourly Emission Rate (lbs/hr): 5.75 (permit total)
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 108.8
MAGLC (ug/m3): 790

Toxic Contaminant: Hexane
TLV (mg/m3): 176.23
Maximum Hourly Emission Rate (lbs/hr): 0.70 (permit total)
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2.77
MAGLC (ug/m3): 4,196

Toxic Contaminant: Formaldehyde
TLV (mg/m3): 368
Maximum Hourly Emission Rate (lbs/hr): 0.52 (permit total)
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1.48
MAGLC (ug/m3): 6.47

The permittee, has demonstrated that emissions of acetaldehyde, hexane and formaldehyde, from emissions unit(s) B001, B002, J001, P007, P008, P009, P010 and P012, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

[PTI P0107584]

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

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

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

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

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

[PTI P0107584]

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

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

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

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

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

[PTI P0107584]

(6) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

[PTI P0107584]

e) Reporting Requirements

(1) The permittee shall submit an annual report of the total annual ethanol throughput, in gallons, for this emissions unit. The report shall be submitted by January 31 of each year, and shall cover the previous calendar year.

[OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit annual reports that include any changes to any parameter or value used in the dispersion model used to demonstrate compliance with the "Toxic Air Contaminate Statute", ORC 3704.03(F), through the predicted 1 hour maximum concentration. The report should include:

a. the original model input;

b. the updated model input;

c. the reason for the change(s) to the input parameter(s); and

d. a summary of the results of the updated modeling, including the input changes; and

e. a statement that the model results indicate that the 1-hour maximum ground-level concentration is less than 80% of the MAGLC.

If no changes to the emissions, emissions unit(s), or the exhaust stack have been made during the reporting period, then the report shall include a statement to that effect. The report shall be submitted by January 31 of each year, and shall cover the previous calendar year.

[ORC 3704.03(F)(3)(c) and (F)(4), OAC rule 3745-114-01]

(3) The permittee shall submit quarterly deviation (excursion) reports that identify all periods during which the pilot flame was not functioning properly. The reports shall include the date, time, and duration of each such period.

The report shall be submitted in accordance with the Standard Terms and Conditions of this permit.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(4) The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of any of the following requirements for the flare:

a. all monitored parameters (i.e., thermocouple or equivalent device and vent stream flow indicator);

b. periods of time when the closed vent system stream is diverted from system control devices;

c. all periods of time when the flare was not operational, including all periods of time during which the pilot flame on the flare is not functioning properly; and

d. all periods of time when required monitoring data was not collected.

The report shall be submitted in accordance with the Standard Terms and Conditions of this permit.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

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

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(6) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #P0107584, issued on 6/29/2011: **[e)(1), e)(2)]**. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

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

f) Testing Requirements

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

a. Emission Limitation :4.35 tons VOC/year

Applicable Compliance Method: The annual limitation represents the potential to emit for this emissions unit. The PTE for VOC for this emissions unit was determined by combining the calculated emissions from loading denatured ethanol and E85. The emissions were calculated by multiplying an emission factor of 5.47 lbs VOC/1000 gallons of denatured ethanol and 5.78 lbs VOC/1000 gallons of E85 [as determined through the methodology in AP-42, section 5.2.2 (1/95) in conjunction with the information submitted by the permittee in the PTIO application by the maximum annual throughout of 69 million gallons of denatured ethanol and 10 million gallons of E85, and by a control factor of (1-0.98*), and then dividing by 2000 pounds/ton.

* the control efficiency for the flare is assumed to be a minimum of 98%.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

b. Emission Limitation :CO emissions shall not exceed 3.32tpy.

Applicable Compliance Method: The annual limitation represents the potential to emit for this emissions unit. The PTE was calculated by multiplying the manufacturer's guaranteed emission rate of 0.084 lb CO per 1000 gallons by the maximum annual throughout of 79 million gallons and then dividing by 2000 pounds/ton.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

c. Emission Limitation :NOx emissions shall not exceed 1.32tpy.

Applicable Compliance Method: The annual limitation represents the potential to emit for this emissions unit. The PTE was calculated by multiplying the manufacturer's guaranteed emission rate of 0.0334 lb NOx per 1000 gallons by the maximum annual throughout of 79 million gallons and then dividing by 2000 pounds/ton.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

g) Miscellaneous Requirements

(1) If required, compliance with the net heating value of the gas being combusted in the flare (shall be 300 BTU/SCF or greater) shall be determined by the method specified in Paragraph (P)(2) of OAC rule 3745-21-10.

(2) If required, compliance with the designed and operated actual exit velocity of the flare (shall be less than 60 feet per second) shall be determined by the method specified in Paragraph (P)(3) of OAC rule 3745-21-10.

3. P001, EU004 & EU005

Operations, Property and/or Equipment Description:

grain transfer conveyors, scalper and surge bins

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(F) (PTI P0104362 issued 6/21/2012)	Filterable particulate matter equal to or less than 10 microns in size (PM10) shall not exceed 0.004 grain per dry standard cubic foot (gr/dscf) and 0.45 ton per year (TPY). Visible particulate emissions (PE) from the baghouse stack(s) shall not exceed 0% opacity. See b)(2)a. and b)(2)d.
b.	OAC rule 3745-17-11(B)	See b)(2)b.
c.	OAC rule 3745-17-07(A)	See b)(2)c.
d.	40 CFR Part 60 Subpart DD	See b)(2)b.

(2) Additional Terms and Conditions

a. This permit takes into account the following voluntary restrictions as proposed by the permittee for the purpose of establishing practically and legally enforceable limitations representing the potential to emit for PM10 from this emissions unit:

i. use of a baghouse system (with a 100% capture efficiency) achieving a maximum outlet grain loading of 0.004 gr/dscf of filterable PM10;

ii. Visible particulate emissions shall not exceed 0% opacity as a 6-minute average from any stack serving this emissions unit;

iii. the establishment of an annual limitation of 0.45 ton filterable PM10 to represent the potential to emit from the control system for this emissions unit.

The resulting potential to emit for this emissions unit is less than ten tons of PM10 per year and as such Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3)(a) do not apply.

b. The emission limitation established by this rule is less stringent than the emission limitation established pursuant to the voluntary restrictions contained in this permit.

c. The visible emission limitation established by this rule is less stringent than the visible emission limitation established pursuant to the voluntary restrictions contained in this permit.

d. All emissions of particulate matter are PM10.

c) Operational Restrictions

(1) The permittee shall operate the baghouse at all times when this emissions unit is in operation.

[OAC rule 3745-77-07(A)(1) and PTI P0104362]

d) Monitoring and/or Recordkeeping Requirements

(1) 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 baghouse stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log, as well as the date and time the daily check was performed. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. the total duration of any visible emission incident; and

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

[OAC rule 3745-77-07(C)(1) and PTI P0104362]

(2) The permittee shall maintain records documenting any time periods when the emissions unit was in operation and the baghouse was not operating.

[OAC rule 3745-77-07(C)(1) and PTI P0104362]

e) Reporting Requirements.

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

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

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

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

[OAC rule 3745-77-07(C)(1)]

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

[OAC rule 3745-77-07(C)(1) and PTI P0104362]

(3) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #P0104362, issued on 6/21/2012: **[e)(1)]**. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

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

f) Testing Requirements

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

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

The baghouse shall achieve a maximum outlet concentration of not greater than 0.004 gr filterable PM10/dscf of exhaust gas.

<u>Applicable Compliance Method</u>:

Compliance with the grain loading of 0.004 gr/dscf shall be demonstrated based on the results of emission testing conducted in accordance with Methods 201/201A of 40 CFR Part 51, Appendix M.

[OAC rule 3745-77-07(C)(1) and PTI P0104362]

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

0.45 ton filterable PM10/yr

Applicable Compliance Method:

Compliance with the annual allowable PM10 emission limitation shall be demonstrated based on the baghouse outlet grain loading and the maximum volumetric flow rate as follows:

PM10 (tons/yr) = baghouse grain loading (0.004 gr/dscf) x 1 lb/7000 gr x maximum volumetric flow rate of the baghouse (3,000 cfm) x 60 min/hour x 8760 hours/yr x ton/2000lbs

Therefore, as long as compliance with the 0.004 gr/dscf is maintained and the volumetric air flow rate is verified through testing, compliance with the annual PM10 limitation shall be ensured.

[OAC rule 3745-77-07(C)(1) and PTI P0104362]

c. Emission Limitation:

Visible PE from the baghouse stack(s) shall not exceed 0% opacity.

Applicable Compliance Method:

Compliance with the visible emission limitation shall be demonstrated in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources").

[OAC rule 3745-77-07(C)(1) and PTI P0104362]

g) Miscellaneous Requirements

(1) None.

4. P007, EU011 - EU024

Operations, Property and/or Equipment Description:

ethanol production operations

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

(1) b)(1)h., d)(7) through d)(10) and e)(2)

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) (PTI P0109395 issued 6/19/2012)	**<u>Emission limits during normal operation:</u>** Carbon monoxide (CO) emissions from P007, P008, P009 and P010 combined, shall not exceed 12.02 lbs/hr and 52.66 tons per year (TPY) [see b)(2)a and c)(1)]. Particulate matter equal to or less than 10 microns in size (PM10), from emissions units P007, P008, P009 and P010 combined, shall not exceed 10.0 lbs/hr and 43.8 TPY [see b)(2)a., b)(2)c. and c)(1)] Volatile organic compound (VOC) emissions from P007, P008, P009 and P010 combined, shall not exceed 9.0 lbs/hr and 46.12 TPY. [see b)(2)a and c)(1)] **<u>Emission limits during downtime of the RTO</u>** During downtime of the RTO, emissions unit P007 shall be the only emissions unit exhausted to the fermentation scrubber. VOC emissions shall not exceed 27.0

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		lbs/hr and 7.69 TPY [see b)(2)a., b)(2)d. and c)(1)]. Visible particulate emissions (PE) from the stack(s) serving this emissions unit shall not exceed 5% opacity, as a six-minute average during normal and RTO downtime operations. **<u>Emission limits during downtime of the scrubber</u>** VOC emissions shall not exceed 600.00 lbs/hr and 12.0 TPY [See b)(2)a., b)(2)h., b)(2)i., c)(1) and e)(6). Visible particulate emissions (PE) from the stack(s) serving this emissions unit shall not exceed 5% opacity, as a six minute average during normal and Scrubber downtime bypass operations.
b.	ORC rule 3704.03(T)	Nitrogen oxides (NOx) emissions from emissions units P007, P008, P009 and P010 combined shall not exceed 11.0 pounds per hour (lbs/hr). See b)(2)e.
c.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	See b)(2)f.
d.	OAC rule 3745-21-09(DD)	See the requirements for emissions unit P801.
e.	40 CFR Part 60, Subpart VV	See the requirements for emissions unit P801.
f.	OAC rule 3745-17-07(A)	See b)(2)g.
g.	OAC rule 3745-17-11(B)	See b)(2)g.
h.	OAC rule 3745-114-01 ORC 3704.03(F)	See d)(7) through d)(10) and e)(2).

(2) Additional Terms and Conditions

a. This permit establishes the following federally enforceable emission limitations for the purpose of limiting the potential to emit (PTE) for CO, $PM_{10}$and VOC to avoid Prevention of Significant Deterioration (PSD) and Title V applicability. The federally enforceable emission limitations are based on the operational restrictions contained in c)(1) which require control equipment and process control:

i. 12.02 lbs/hr and 52.66 tpy CO (for P007, P008, P009 and P010 combined);

ii. 10.0 lbs/hr PM10 and 43.8 tpy PM10(for P007, P008, P009 and P010 combined);

iii. visible PE shall not exceed 5% opacity, as a six-minute average (during normal operations and downtime of the RTO);

iv. 9.0 lbs/hr and 46.12 tpy VOC (during normal operations) (for P007, P008, P009 and P010 combined); and

v. 27.0 lbs/hr and 7.69 tpy VOC (during downtime of the RTO)

vi. 600.00 lbs/hr and 12.0 tpy VOC (during downtime of the scrubber)

b. The annual allowable emission rate is based on the annual production of 79,000,000 gallons denatured ethanol (includes up to 10,000,000 gallons of E85). Since the facility's annual production rate is equivalent to the maximum facility capacity, no operational restrictions, monitoring, record keeping or reporting requirements are necessary to ensure that this emissions unit does not exceed its annual allowable emission rates. The requirement to record the amount of ethanol produced is in the terms and conditions of emissions unit J001.

c. All emissions of particulate matter are PM10.

d. When the RTO is shutdown for unscheduled maintenance* or other operational reasons, while this emissions unit is in operation, this emissions unit shall be controlled by the fermentation scrubber. Down time of the RTO, while this emissions unit continues to operate, shall not exceed 400 hours per year and the permittee must also shut down emissions units P008 and P009 during the unscheduled downtime of the RTO.

*RTO shutdown for unscheduled maintenance is considered any maintenance, malfunction, etc. which the permittee does not address under the provisions of OAC rule 3745-15-06.

e. The Best Available Technology (BAT) requirements under ORC 3704.03(T) have been determined to be a NOx emission limitation not to exceed 11.0 lbs/hr (for P007, P008, P009 and P010 combined) and compliance with the lb/hr limitations established under OAC rule 3745-31-05(D).

The emission rates above represent the potential to emit (defined as the maximum capacity to emit an air pollutant under the physical and operational design). Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure compliance with these emission limitations.

f. The emissions of sulfur dioxide (SO2) from this emissions unit have been determined to be negligible and are therefore emission limitations under OAC rule 3745-31-05(A)(3), as effective 11-30-01, have not been established in this permit.

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

h. When the scrubber is shutdown for unscheduled maintenance* or other operational reasons, while this emissions unit is in operation, the permittee shall be required toshutdown, at a minimum, the slurry and distillation operations of this emissions unit. Down time of the scrubber, while this emissions unit continues to operate, shall not exceed 40 hours per year. The permittee shall schedule and perform the activities to correspond to other shut down maintenance activities.

*Scrubber shutdown for unscheduled maintenance is considered any maintenance, malfunction, etc. which the permittee does not address under the provisions of OAC rule 3745-15-06.

i. During Ohio's ozone season, April 1 through October 31, the permittee shall conduct any unscheduled scrubber maintenance activities, as specified below:

i. perform maintenance activities between the hours of 7:00 p.m. and 7:00 a.m.; or

ii. perform maintenance activities on days during which the ozone air quality index (AQI) forecast is below 100 for the area surrounding the facility.

If it is not feasible to conduct the unscheduled scrubber maintenance activities in accordance with the requirements in b)(2)i.i. or b)(2)i.ii., the permittee shall notify Northwest District Office at least 2 weeks prior to performing the maintenance activities and indicate why it is impossible or impractical to meet those requirements.

c) Operational Restrictions

(1) The following operational restrictions have been included in this permit for the purpose of establishing federally enforceable requirements which limit PTE [see b)(2)a.]:

a. the use of a wet scrubber meeting a minimum control efficiency of 95% for VOC emissions;

b. the use of a regenerative thermal oxidizer (RTO) following the wet scrubber meeting a minimum control efficiency of 90% for CO and particulate matter* and 98% for VOC emissions; and

c. firing only natural gas in the RTO.

*The control of particulate matter includes a multiclone/cyclone for removal of particulate matter (as dried product) prior to entering the RTO. The control

system shall result in a PM10 emission rate not to exceed 10.0 lbs/hr from the RTO.

[OAC rule 3745-77-07(A)(1) and PTI P0109395]

(2) The unscheduled down time of the RTO, while this emissions unit continues to operate, shall not exceed 400 hours per calendar year.

[OAC rule 3745-77-07(A)(1) and PTI P0109395]

(3) The permittee shall shut down emissions units P008 and P009 when the RTOexperiences an unscheduled shutdown.

[OAC rule 3745-77-07(A)(1) and PTI P0109395]

(4) The permittee shall shutdown, at a minimum, the slurry and distillation operations of this emissions unit when the scrubber experiences an unscheduled shutdown.

[OAC rule 3745-77-07(A)(1) and PTI P0109395]

(5) The unscheduled down time of the scrubber, while this emissions unit continues to operate shall not exceed 40 hours per calendar year.

[OAC rule 3745-77-07(A)(1) and PTI P0109395]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall properly install, operate, and maintain equipment to continuously monitor and record the combustion temperature within the thermal oxidizer during operation of this emissions unit. 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 record the combustion temperature within the thermal oxidizer on a continuous basis.

Whenever the monitored value for the combustion temperature deviates from the value specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date(s) the investigation was conducted;

d. the names of the personnel who conducted the investigation; and,

e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable value specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination

and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

f. a description of the corrective action;

g. the date it was completed;

h. the date and time the deviation ended;

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

j. the combustion temperature within the thermal oxidizer immediately after the corrective action; and,

k. the names of the personnel who performed the work.

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

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

The temperature limit is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted temperature limit based upon information obtained during future performance tests that demonstrate compliance with the allowable emission rate(s) for the controlled pollutant(s). In addition, approved revisions to the temperature limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

[OAC rule 3745-77-07(C)(1) and PTI P0109395]

(2) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop across the scrubber, in inches of water, and the scrubber water flow rate, in gallons per minute during operation of this emissions unit. 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 record the pressure drop, in inches of water, across the scrubber and the scrubber water flow rate, in gallons per minute, on a once per shift basis.

Whenever the monitored values for the pressure drop and/or the monitor value for the water flow rate deviate from the values specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date(s) the investigation was conducted;

d. the names of the personnel who conducted the investigation; and,

e. the findings and recommendations.

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

f. a description of the corrective action;

g. the date it was completed;

h. the date and time the deviation ended;

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

j. the pressure drop and/or water flow rate reading immediately after the corrective action; and,

k. the names of the personnel who performed the work.

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

The pressure drop across the scrubber shall be maintained in accordance with the manufacturer's specifications. The scrubber water flow rate shall be no less the value established during the most recent emission testing that demonstrated the emissions unit was in compliance (until such time that such value is established, the scrubber water flow rate shall be maintained in accordance with the manufacturer's specifications).

The water flow rate is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the water flow rate based upon information obtained during future emission tests that demonstrate compliance with the allowable emission rates for this emissions unit. In addition, approved revisions to the water flow rate value will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into the operating permit for the facility by means of a minor permit modification.

[OAC rule 3745-77-07(C)(1) and PTI P0109395]

(3) For each time period during which emissions units P008 and/or P009 were in operation when the RTOwas shut down [see b)(2)d. and c)(2)], the permittee shall maintain a record of the number of hours emissions unit P008 and/or P009 were in operation during that time period. Also, the permittee shall maintain a record of all instances when emissions unit P008 and/or P009 were in operation when the RTO was shut down.

[OAC rule 3745-77-07(C)(1) and PTI P0109395]

(4) For each time period during which the slurry and distillation processes were in operation when the scrubberwas shut down [see b)(2)h. and c)(5)], the permittee shall maintain a record of the number of hours the slurry and distillation processes were in operation during that time period. Also, the permittee shall maintain a record of all instances when the slurry and distillation processes were in operation when the scrubber was shut down.

[OAC rule 3745-77-07(C)(1) and PTI P0109395]

(5) The permittee shall maintain monthly records of the number of hours the RTOwas shut down while this emissions unit remained in operation [see b)(2)d. andc)(2)] (in hours per month and total hours, to date for the calendar year).

[OAC rule 3745-77-07(C)(1) and PTI P0109395]

(6) The permittee shall maintain monthly records of the number of hours the scrubber was shut down while the slurry and distillation processes remained in operation [see b)(2)h. and c)(4)] (in hours per month and total hours, to date for the calendar year).

[OAC rule 3745-77-07(C)(1) and PTI P0109395]

(7) The federally enforceable permit-to-install (FEPTI) application for these emissions unit(s), B001, B002, J001, P007, P008, P009, P010 and P012, was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee. The Toxic Air Contaminant Statute, ORC 3704.03(F), was applied to these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled Review of New Sources of Air Toxic Emissions, Option A, as follows:

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

i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values for

Chemical Substances and Physical Agents Biological Exposure Indices; or

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

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

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

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

d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or "worst case" toxic contaminant(s):

Toxic Contaminant: Acetaldehyde
TLV (mg/m3): 33.2
Maximum Hourly Emission Rate (lbs/hr): 5.75 (permit total)
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 108.8
MAGLC (ug/m3): 790

Toxic Contaminant: Hexane
TLV (mg/m3): 176.23
Maximum Hourly Emission Rate (lbs/hr): 0.70 (permit total)
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2.77
MAGLC (ug/m3): 4,196

Toxic Contaminant: Formaldehyde
TLV (mg/m3): 368
Maximum Hourly Emission Rate (lbs/hr): 0.52 (permit total)
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1.48
MAGLC (ug/m3): 6.47

The permittee, has demonstrated that emissions of acetaldehyde, hexane and formaldehyde, from emissions unit(s) B001, B002, J001, P007, P008, P009, P010 and P012, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

[PTI P0109395]

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

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

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

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

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

[PTI P0109395]

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

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

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

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

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

[PTI P0109395]

(10) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

[PTI P0109395]

e) Reporting Requirements

(1) The permittee shall submit annual reports that include any changes to any parameter or value used in the dispersion model used to demonstrate compliance with the "Toxic Air Contaminate Statute", ORC 3704.03(F), through the predicted 1 hour maximum concentration. The report should include:

a. the original model input;

b. the updated model input;

c. the reason for the change(s) to the input parameter(s); and

d. a summary of the results of the updated modeling, including the input changes; and

e. a statement that the model results indicate that the 1-hour maximum ground-level concentration is less than 80% of the MAGLC.

If no changes to the emissions, emissions unit(s), or the exhaust stack have been made during the reporting period, then the report shall include a statement to that effect.

The report shall be submitted by January 31 of each year and shall cover the previous calendar year.

[ORC 3704.03(F)(3)(c) and (F)(4)], OAC rule 3745-114-01]

(2) The permittee shall submit deviation reports that identify all instances when:

a. emissions units P008 and/or P009 were in operation [see b)(2)d. and c)(3)] when the RTOwas shut down; and

b. slurry and distillation processes were in operation [see b)(2)h. and c)(4)].

These reports shall be submitted within 30 days after the deviation occurs.

[OAC rule 3745-77-07(C)(1) and PTI P0109395]

(3) The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:

a. For the thermal incinerator:

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

ii. an identification of each incident of deviation described in (a) where a prompt investigation was not conducted;

iii. an identification of each incident of deviation described in (a) where prompt corrective action, that would bring the combustion temperature into compliance with the acceptable range, was determined to be necessary and was not taken;

iv. an identification of each incident of deviation described in (a) where proper records were not maintained for the investigation and/or the corrective action; and

v. any exceedance of the annual hours of operation when the emissions units was operating during unscheduled downtime of the RTO.

b. For the scrubber:

i. each period of time when the pressure drop across the scrubber was outside of the acceptable range;

ii. each period of time when the scrubber water flow rate deviated from the acceptable value;

iii. an identification of each incident of deviation described in (a) and/or (b) where prompt corrective action, that would bring the pressure drop and/or water flow rate into compliance with the acceptable range/value, was determined to be necessary and was not taken;

iv. an identification of each incident of deviation described in (a) and/or (b) where proper records were not maintained for the investigation and/or the corrective action; and

v. any exceedance of the annual hours of operation when the emissions units was operating during unscheduled downtime of the scrubber.

The reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

[OAC rule 3745-77-07(C)(1) and PTI P0109395]

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

[OAC rule 3745-77-07(C)(1) and PTI P0109395]

(5) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #P0109395, issued on 6/19/2012: **[e)(1)]**. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

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

f) Testing Requirements

(1) 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 of permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the CO, VOC, and PM10 mass emission limitations from the regenerative thermal oxidizer controlling this emissions unit. Emission testing shall also be conducted to demonstrate compliance with the control efficiency limitation for VOCs from the scrubber controlling this emissions unit, and for the control efficiency limitation for VOCs from the regenerative thermal oxidizer controlling this emissions unit.

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

i. for PM10, Methods 201/201A and 202 of 40 CFR Part 51, Appendix M;

ii. for CO, Methods 1-4 and 10 of 40 CFR Part 60, Appendix A; and

iii. for total VOC, Methods 1-4 and 18, 25 or 25A of 40 CFR Part 60, Appendix A. Appropriate methods shall be used in conjunction with the test methods and procedures specified in Methods 18, 25, or 25A of 40 CFR Part 60, Appendix A for determining total VOC mass emissions.

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA, NWDO. The test method(s) which must be employed to demonstrate compliance with the control efficiencies are specified below.

d. The <u>control efficiency</u> (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in Methods 18, 25, or 25A of 40 CFR Part 60, Appendix A for VOC emissions .

e. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases."

f. The test(s) shall be conducted while emissions units P007, P008, P009 and P010 are operating at their maximum capacities, unless otherwise specified or approved by the Ohio EPA, NWDO.

g. During emission testing, the permittee shall also record the following information:

i. the pressure drop across the scrubber, in inches of water;

ii. the scrubber water flow rate, in gallons/minute; and

iii. the average combustion temperature within the thermal incinerator, in degrees Fahrenheit.

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

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

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

Future testing requirements shall be conducted in accordance with applicable rules, policies, etc. (i.e. Engineering Guide #16, OAC rule 3745-15-04, etc.) Testing time frames may be amended or waived for cause upon prior request of and written approval of, the Ohio EPA Northwest District Office.

(2) Compliance with the emission limitations and/or control requirements specified in b)(1)of these terms and conditions shall be determined in accordance with the following methods:

a. <u>Emission Limitations:</u>
9.0 lb VOC/hr (for emissions units P007, P008, P009 and P010 combined)

11.0 lbs NOx/hr (for emissions units P007, P008, P009 and P010 combined)

12.02 lbs CO/hr (for emissions units P007, P008, P009 and P010 combined)

10.0 lbs PM10/hr (for emissions units P007, P008, P009 and P010 combined)

Applicable Compliance Method:
Compliance with the hourly allowable emission limitations above were demonstrated by emission testing conducted on 11/29/2011 in accordance with the following:

i. for PM10, Methods 201/201A and 202 of 40 CFR Part 51, Appendix M;

ii. for NOx, Methods 1-4 and 7 of 40 CFR Part 60, Appendix A;

iii. for CO, Methods 1-4 and 10 of 40 CFR Part 60, Appendix A; and

iv. for total VOC, Methods 1-4 and 18, 25 or 25A of 40 CFR Part 60, Appendix A.

Additional testing requirements shall be conducted in accordance with applicable rules, policies, etc. (i.e. Engineering Guide #16, OAC rule 3745-15-04, etc.)

[OAC rule 3745-77-07(C)(1) and PTI P0109395]

b. Emission Limitations:
46.12 tpy VOC (for emissions units P007, P008, P009 and P010 combined)

52.66 tpy CO (for emissions units P007, P008, P009 and P010 combined)

43.8 tpy PM10 (for emissions units P007, P008, P009 and P010 combined)

Applicable Compliance Method:

The annual emission limitations were developed by multiplying the respective hourly emission limitations by the maximum operating schedule of 8760 hours/year, and then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitations, compliance with the annual limitations shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI P0109395]

c. Emission Limitation:
Visible PE from the RTO stack shall not exceed 5% opacity, as a six-minute average (during normal operations and RTO downtime).

Appliance Compliance Method:
If required compliance shall be determined according to test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

[OAC rule 3745-77-07(C)(1) and PTI P0109395]

d. Emission Limitation:
The scrubber shall meet a minimum control efficiency of 95% for VOC emissions.

The regenerative thermal oxidizer shall meet a minimum control efficiency of 98% for VOC emissions, and a minimum control efficiency of 90% for CO and PM10*.

*The control of particulate matter includes a multiclone/cyclone for removal of particulate matter (as dried product) prior to entering the RTO. The control system shall result in a PM10 emission rate not to exceed 10.0 lbs/hr from the RTO.

Applicable Compliance Method:
Compliance with the VOC control efficiency requirements were demonstrated by emission testing conducted on 11/29/2011 in accordance with the following methods:

i. the control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in Methods 18, 25, or 25A of 40 CFR Part 60, Appendix A for VOC emissions .

Compliance with the CO destruction efficiency shall be assumed as long as compliance with the hourly CO mass emission limitation is maintained. [Due to the creation of CO in the RTO, it is not possible to perform testing to demonstrate compliance directly associated with the destruction of CO entering the RTO.]

[OAC rule 3745-77-07(C)(1) and PTI P0109395]

g) Miscellaneous Requirements

(1) None.

5. P010, EU029

Operations, Property and/or Equipment Description:

cooling and storage of DDGS

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

(1) b)(1)f., d)(5) through d)(8) and e)(1)

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) (PTI P0110767 issued 08/23/2012)	**<u>Emission limits during normal operation:</u>** *<u>From Stack SV009 (RTO outlet):</u>* Carbon monoxide (CO) emissions from P007, P008, P009 and P010, combined, shall not exceed 12.02 lbs/hr and 52.66tons per year (tpy). Particulate matter equal to or less than 10 microns in size (PM10), from emissions units P007, P008, P009 and P010, combined, shall not exceed 10.0 lbs/hr and 43.8 tpy. Volatile organic compound (VOC) emissions from P007, P008, P009 and P010, combined, shall not exceed 9.0 lbs/hr and 46.12 tpy. Visible particulate emissions (PE), from the RTO stack shall not exceed 5% opacity, as a six-minute average. *<u>From Stack SV010 (fluid bed cooler stack):</u>* PM10 emissions shall not exceed 0.004 grain per dry standard cubic foot (gr/dscf)

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		and 1.50 tpy. Visible particulate emissions (PE), from stack SV010 shall not exceed 0% opacity, as a six-minute average. <u>From Stacks SV011 and SV012 (Storage silo and Flat storage)</u> PM10 emissions shall not exceed 0.004 grain per dry standard cubic foot (gr/dscf) and 1.20 tpy from this emissions unit. Visible particulate emissions (PE), from the stack(s) serving this portion of the emissions unit, shall not exceed 0% opacity, as a six-minute average. See b)(2)a., b)(2)b. and c)(1)
b.	ORC rule 3704.03(T)	*<u>From Stack SV009 (RTO outlet):</u>* Nitrogen oxides (NOx) emissions from emissions units P007, P008, P009 and P010, combined, shall not exceed 11.0 pounds per hour (lbs/hr). *<u>Emissions from Stack SV010 (fluid bed cooler stack) during normal operation:</u>* 0.16 lb VOC per ton DDGS cooled <u>Emissions from stack SV010 during downtime of the RTO:</u> 0.37 lb VOC per ton DDGS cooled See b)(2)e.
c.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	See b)(2)f.
d.	OAC rule 3745-17-11(B)	See b)(2)g.
e.	OAC rule 3745-17-07(A)	See b)(2)g.
f.	OAC rule 3745-114-01 ORC 3704.03(F)	See d)(5) through d)(8) and e)(2)

(2) Additional Terms and Conditions

a. This permit establishes the following federally enforceable emission limitations for the purpose of limiting the potential to emit (PTE) for CO, PM_{10} and VOC to

avoid Prevention of Significant Deterioration (PSD) and Title V applicability. The federally enforceable emission limitations are based on the operational restrictions contained in c)(1) which require control equipment and process control:

From Stack SV009 (RTO outlet):

i. 12.02 lbs/hr and 52.66 tpy CO (for P007, P008, P009 and P010 combined);

ii. 10.0 lbs/hr PM10 and 43.8 tpy PM10(for P007, P008, P009 and P010 combined);

iii. visible PE shall not exceed 5% opacity, as a six-minute average;

iv. 9.0 lbs/hr and 46.12 tpy VOC (for P007, P008, P009 and P010 combined).

From Stack SV010 (fluid bed cooler stack):

v. 0.004 gr PM10/dscf* and 1.50 tons PM10/year; and

vi. visible particulate emissions (PE) shall not exceed 0% opacity, as a six-minute average.

*The outlet concentration applies to the following stacks:

(a) pneumatic fluid bed cooler stack ;

(b) storage silo stack ; and

(c) flat storage stack.

From Stacks SV011 and SV012 (Storage silo and Flat storage)

vii. 0.004 gr PM10/dscf and 1.20 tons PM10/year; and

viii. visible particulate emissions (PE), from the stack(s) serving this portion of the emissions unit, shall not exceed 0% opacity, as a six-minute average.

b. All emissions of particulate matter are PM10.

c. Under normal operation, the exhaust stream from the fluid bed cooler is split into two streams. A portion of the stream is utilized as pre-heated combustion air to both dryers (emissions units P008 and P009) in place of fresh combustion air. This portion of the stream is eventually exhausted through the RTO. The other portion is routed to the fluid bed cooler stack (SV010).

d. When the RTO is shutdown for unscheduled maintenance* or other operational reasons, this emissions unit shall be completely routed to the fluid bed cooler stack (SV010). Down time of the RTO, while this emissions unit continues to operate, shall not exceed 100 hours per year and the permittee must also shut

down emissions units P008 and P009 during the unscheduled downtime of the RTO.

*RTO shutdown for unscheduled maintenance is considered any maintenance, malfunction, etc. which the permittee does not address under the provisions of OAC rule 3745-15-06.

e. The Best Available Technology (BAT) requirements under ORC 3704.03(T) have been determined to be the following:

i. a VOC emission limitation not to exceed 0.16 lb/ton DDGS cooled from stack SV010 during normal operation;

ii. a VOC emission limitation not to exceed 0.37 lb/ton DDGS cooled from stack SV010 during downtime of the RTO; and

iii. a NOx emission limitation not to exceed 11.0 lbs/hr (for P007, P008, P009 and P010 combined); and

iv. compliance with the mass emission limitations established under OAC rule 3745-31-05(D).

The emission rates above represent the potential to emit (defined as the maximum capacity to emit an air pollutant under the physical and operational design) during each operating scenario. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure compliance with these emission limitations.

f. The emissions of sulfur dioxide (SO2) from this emissions unit have been determined to be negligible and are therefore not included in this permit.

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

c) Operational Restrictions

(1) The following operational restrictions have been included in this permit for the purpose of establishing federally enforceable requirements which limit PTE [see b)(2)a.]:

a. the use of a regenerative thermal oxidizer (RTO) following a wet scrubber meeting a minimum control efficiency of 90% for CO and particulate matter* and 98% for VOC emissions;

b. firing only natural gas in the RTO.

*The control of particulate matter includes a multiclone/cyclone for removal of particulate matter (as dried product) prior to entering the RTO. The control system shall result in a PM10 emission rate not to exceed 10.0 lbs/hr (for emissions units P007, P008, P009 and P010 combined) from the RTO.

c. the use of a baghouse system achieving a maximum outlet concentration of 0.004 gr/dscf for PM10.

[OAC rule 3745-77-07(A)(1) and PTI P0110767]

(2) The unscheduled down time of the RTO, while this emissions unit continues to operate, shall not exceed 100 hours per calendar year.

[OAC rule 3745-77-07(A)(1) and PTI P0110767]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall properly install, operate, and maintain equipment to continuously monitor and record the combustion temperature within the thermal oxidizer during operation of this emissions unit. 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 record the combustion temperature within the thermal oxidizer on a continuous basis.

Whenever the monitored value for the combustion temperature deviates from the value specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date(s) the investigation was conducted;

d. the names of the personnel who conducted the investigation; and,

e. the findings and recommendations.

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

f. a description of the corrective action;

g. the date it was completed;

h. the date and time the deviation ended;

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

j. the combustion temperature within the thermal oxidizer immediately after the corrective action; and,

k. the names of the personnel who performed the work.

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

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

The temperature limit is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted temperature limit based upon information obtained during future performance tests that demonstrate compliance with the allowable emission rate(s) for the controlled pollutant(s). In addition, approved revisions to the temperature limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

[OAC rule 3745-77-07(C)(1) and PTI P0110767]

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

[OAC rule 3745-77-07(C)(1) and PTI P0110767]

(3) The permittee shall maintain monthly records of the number of hours the RTO was shutdown while this emissions unit remained in operation [see b)(2)c. and c)(2)] (in hours per month and total hours, to date for the calendar year).

[OAC rule 3745-77-07(C)(1) and PTI P0110767]

(4) 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 baghouse stack(s) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log, as well as the date and time the daily check was performed. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. the total duration of any visible emission incident; and

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

[OAC rule 3745-77-07(C)(1) and PTI P0110767]

(5) The federally enforceable permit-to-install (FEPTI) application for these emissions unit(s), B001, B002, J001, P007, P008, P009, P010 and P012, was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to these emissions unit(s) for each toxic air contaminant listed

in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

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

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

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

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

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

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

d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or "worst case" toxic contaminant(s):

Toxic Contaminant: Acetaldehyde
TLV (mg/m3): 33.2
Maximum Hourly Emission Rate (lbs/hr): 5.75 (permit total)
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 108.8
MAGLC (ug/m3): 790

Toxic Contaminant: Hexane
TLV (mg/m3): 176.23
Maximum Hourly Emission Rate (lbs/hr): 0.70 (permit total)

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2.77
MAGLC (ug/m3): 4,196

Toxic Contaminant: Formaldehyde
TLV (mg/m3): 368
Maximum Hourly Emission Rate (lbs/hr): 0.52 (permit total)
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1.48
MAGLC (ug/m3): 6.47

The permittee, has demonstrated that emissions of acetaldehyde, hexane and formaldehyde, from emissions unit(s) B001, B002, J001, P007, P008, P009, P010 and P012, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

[PTI P0110767]

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

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

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

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

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

[PTI P0110767]

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

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

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

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

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

[PTI P0110767]

(8) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

[PTI P0110767]

e) Reporting Requirements

(1) The permittee shall submit annual reports that include any changes to any parameter or value used in the dispersion model used to demonstrate compliance with the "Toxic Air Contaminate Statute", ORC 3704.03(F), through the predicted 1 hour maximum concentration. The report should include:

a. the original model input;

b. the updated model input;

c. the reason for the change(s) to the input parameter(s); and

d. a summary of the results of the updated modeling, including the input changes; and

e. a statement that the model results indicate that the 1-hour maximum ground-level concentration is less than 80% of the MAGLC.

If no changes to the emissions, emissions unit(s), or the exhaust stack have been made during the reporting period, then the report shall include a statement to that effect.

The report shall be submitted by January 31 of each year and shall cover the previous calendar year.

[ORC 3704.03(F)(3)(c) and (F)(4), OAC rule 3745-114-01]

(2) The permittee shall submit deviation reports that identify all instances when emissions units P008 and/or P009 were in operation [see b)(2)d. and c)(3)] when the RTO was shut down. These reports shall be submitted within 30 days after the deviation occurs.

[OAC rule 3745-77-07(C)(1) and PTI P0110767]

(3) The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment (thermal incinerator) during the operation of this emissions unit:

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

b. an identification of each incident of deviation described in (a) where a prompt investigation was not conducted;

c. an identification of each incident of deviation described in (a) where prompt corrective action, that would bring the combustion temperature into compliance with the acceptable range, was determined to be necessary and was not taken; and

d. an identification of each incident of deviation described in (a) where proper records were not maintained for the investigation and/or the corrective action.

The reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

[OAC rule 3745-77-07(C)(1) and PTI P0110767]

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

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

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

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

[OAC rule 3745-77-07(C)(1) and PTI P0110767]

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

[OAC rule 3745-77-07(C)(1) and PTI P0110767]

(6) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #P0110767, issued on 08/23/2012: **[e)(1)]**. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

f) Testing Requirements

(1) 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 of permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the CO, VOC, and PM10 mass emission limitations from the regenerative thermal oxidizer controlling this emissions unit. Emission testing shall also be conducted to demonstrate compliance with the control efficiency limitation for VOCs from the scrubber controlling this emissions unit, and for the control efficiency limitation for VOCs from the regenerative thermal oxidizer controlling this emissions unit.

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

i. for PM10, Methods 201/201A and 202 of 40 CFR Part 51, Appendix M;

ii. for CO, Methods 1-4 and 10 of 40 CFR Part 60, Appendix A; and

iii. for total VOC, Methods 1-4 and 18, 25 or 25A of 40 CFR Part 60, Appendix A. Appropriate methods shall be used in conjunction with the test methods and procedures specified in Methods 18, 25, or 25A of 40 CFR Part 60, Appendix A for determining total VOC mass emissions.

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA, NWDO. The test method(s) which must be employed to demonstrate compliance with the control efficiencies are specified below.

d. The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in Methods 18, 25, or 25A of 40 CFR Part 60, Appendix A for VOC emissions .

e. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases."

f. The test(s) shall be conducted while emissions units P007, P008, P009 and P010 are operating at their maximum capacities, unless otherwise specified or approved by the Ohio EPA, NWDO.

g. During emission testing, the permittee shall also record the following information:

i. the pressure drop across the scrubber, in inches of water;

ii. the scrubber water flow rate, in gallons/minute; and

iii. the average combustion temperature within the thermal incinerator, in degrees Fahrenheit.

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

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

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

Future testing requirements shall be conducted in accordance with applicable rules, policies, etc. (i.e. Engineering Guide #16, OAC rule 3745-15-04, etc.) Testing time frames may be amended or waived for cause upon prior request of and written approval of, the Ohio EPA Northwest District Office.

(2) Compliance with the emission limitations and/or control requirements specified in b)(1)of these terms and conditions shall be determined in accordance with the following methods:

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

9.0 lbs VOC/hr, 46.12 tpy VOC (for emissions units P007, P008, P009 and P010 combined)

11.0 lbs NOx/hr (for emissions units P007, P008, P009 and P010 combined)

12.02 lbs CO/hr, 52.66 tpy CO (for emissions units P007, P008, P009 and P010 combined)

10.0 lbs PM10/hr, 43.8 tpy PM10 (for emissions units P007, P008, P009 and P010 combined)

Applicable Compliance Method:
Compliance with the hourly allowable emission limitations above were demonstrated by emission testing conducted on 11/29/2011 and 12/01/2011 in accordance with the following:

i. for PM10, Methods 201/201A and 202 of 40 CFR Part 51, Appendix M;

ii. for NOx, Methods 1-4 and 7 of 40 CFR Part 60, Appendix A;

iii. for CO, Methods 1-4 and 10 of 40 CFR Part 60, Appendix A; and

iv. for total VOC, Methods 1-4 and 18, 25 or 25A of 40 CFR Part 60, Appendix A.

Additional testing requirements shall be conducted in accordance with applicable rules, policies, etc. (i.e. Engineering Guide #16, OAC rule 3745-15-04, etc.)

The annual emission limitations were developed by multiplying the respective hourly emission limitations by the maximum operating schedule of 8760 hours/year, and then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitations, compliance with the annual limitations shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI P0110767]

b. Emission Limitations:

From stacks SV010, SV011 and SV012, PM10 emissions shall not exceed 0.004 gr PM10/dscf and 2.70 tons PM10/year.

Applicable Compliance Method:
Compliance with the grain loading of 0.004 gr/dscf shall be demonstrated based on the results of emission testing conducted in accordance with Methods 201/201A and 202 of 40 CFR Part 51, Appendix M.

Compliance with the annual allowable PM10 emission limitation shall be demonstrated based on the baghouse outlet grain loading and the maximum volumetric flow rate as follows:

PM10 (tons/yr) = baghouse grain loading (0.004 gr/dscf) x 1 lb/7000 gr x maximum volumetric flow rate of the baghouse (18,000 cfm*) x 60 min/hour x 8760 hours/yr x ton/2000 lbs

Therefore, as long as compliance with the 0.004 gr/dscf is maintained and the volumetric air flow rate is verified through testing, compliance with the annual PM10 limitation shall also be demonstrated.

*The maximum flow rate is the combined flow from stacks SV010 (10,000 dscfm), SV011 and SV012 (both 4000 dscfm).

[OAC rule 3745-77-07(C)(1) and PTI P0110767]

c. Emission Limitation:

0.16 lb VOC per ton DDGS cooled, during normal operation from stack SV010 (fluid bed cooler stack)

0.37 lb VOC per ton DDGS cooled, during downtime of the RTO from stack SV010 (fluid bed cooler stack).

Applicable Compliance Method:
Compliance with the allowable emission limitations during RTO downtime above shall be demonstrated based on the results of emission testing conducted in accordance with the Methods 1-4, 18, 25, or 25A of 40 CFR Part 60, Appendix A.

If required, compliance with the allowable emission limitations during normal operations above shall be demonstrated based on the results of emission testing conducted in accordance with the Methods 1-4, 18, 25, or 25A of 40 CFR Part 60, Appendix A.

[OAC rule 3745-77-07(C)(1) and PTI P0110767]

d. Emission Limitation:

Visible PE from the RTO stack shall not exceed 5% opacity, as a six-minute average.

Applicable Compliance Method:
If required compliance shall be determined according to test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

[OAC rule 3745-77-07(C)(1) and PTI P0110767]

e. Emission Limitation:

Visible PE shall not exceed 0% opacity, as a six-minute average from the baghouse stack(s) serving this emissions unit

Applicable Compliance Method:
If required compliance shall be determined according to test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

[OAC rule 3745-77-07(C)(1) and PTI P0110767]

f. Emission Limitation:

The regenerative thermal oxidizer shall meet a minimum control efficiency of 98% for VOC emissions, and a minimum control efficiency of 90% for CO and PM10*.

*The control of particulate matter includes a multiclone/cyclone for removal of particulate matter (as dried product) prior to entering the RTO. The control system shall result in a PM10 emission rate not to exceed 10.0 lbs/hr from the RTO.

Applicable Compliance Method:
Compliance with the VOC control efficiency requirements were demonstrated by emission testing conducted on 11/29/2011 and 12/01/2011 in accordance with the following methods:

i. the control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in Methods 18, 25, or 25A of 40 CFR Part 60, Appendix A for VOC emissions.

Compliance with the CO destruction efficiency shall be assumed as long as compliance with the hourly CO mass emission limitation is maintained. [Due to the creation of CO in the RTO, it is not possible to perform testing to demonstrate compliance directly associated with the destruction of CO entering the RTO.]

[OAC rule 3745-77-07(C)(1) and PTI P0110767]

g) Miscellaneous Requirements

(1) None.

6. P011, Cooling Tower - F005

Operations, Property and/or Equipment Description:

cooling tower

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) (PTI P0104362 issued 6/21/2012)	Particulate matter equal to or less than 10 microns in size (PM10) shall not exceed 1.63 pounds/hour (lbs/hr) and 7.14 tons per year (TPY). Visible particulate emissions (PE) shall not exceed 5% opacity, as a six-minute average. See b)(2)a. and b)(2)c.
b.	OAC rule 3745-17-07(A)	See b)(2)b.
c.	OAC rule 3745-17-11(B)	See b)(2)b.

(2) Additional Terms and Conditions

a. Permit to install (PTI) P0104362 takes into account the voluntary restrictions of 1.63 lbs PM10/hr and 7.14 tons PM10/yr as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3).

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

c. All emissions of particulate matter are PM10.

c) Operational Restrictions

(1) The permittee shall maintain the total dissolved solids (TDS) content of the circulating cooling water at 2,500 mg/L or less.

[OAC rule 3745-77-07(A)(1) and PTI P0104362]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall properly install, operate, and maintain equipment to continuously monitor and continuously record the conductivity of the cooling tower water. The monitoring devices shall be installed, calibrated, operated, and maintained in accordance with the manufacturers' recommendations, instructions, and operating manuals.

[OAC rule 3745-77-07(C)(1) and PTI P0104362]

(2) The conductivity shall be used to determine the TDS content of the cooling tower water based on an established correlation between TDS and conductivity of the cooling water.

[OAC rule 3745-77-07(C)(1) and PTI P0104362]

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports that identify any exceedances of the TDS content requirement. These reports shall be submitted within 30 days after the deviation occurs.

[OAC rule 3745-77-07(C)(1) and PTI P0104362]

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

[OAC rule 3745-77-07(C)(1) and PTI P0104362]

f) Testing Requirements

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

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

PM10 shall not exceed 1.63 lbs/hr and 7.14 TPY.

<u>Applicable Compliance Methods:</u>

The hourly allowable PM10 emission limitation was developed by multiplying the maximum water flow rate of 1.56 million gallons per hour by the drift loss factor of 0.005%, an average total dissolved content of 2500 mg/L and applying the conversion factors of 3.785412 L/gal and 453592.4 mg/L.

If required, the permittee shall submit a testing proposal to demonstrate that the maximum drift loss does not exceed 0.005 percent.

The annual emission limitation was developed by multiplying the hourly emission limitation by the maximum operating schedule of 8760 hours/year, and then dividing by 2000 lbs/ton. Therefore, if compliance is shown with the hourly limitation, compliance with the annual limitation shall be assumed.

[OAC rule 3745-77-07(C)(1) and PTI P0104362]

b. Emission Limitation:

Visible PE shall not exceed 5% opacity, as a six-minute average.

Applicable Compliance Method:

Compliance with the visible emission limitation shall be demonstrated in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources").

[OAC rule 3745-77-07(C)(1) and PTI P0104362]

g) Miscellaneous Requirements

(1) None.

7. P012, EU037

Operations, Property and/or Equipment Description:

2000 kW electrical generator

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

(1) b)(1)g., d)(4)

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) (PTI P0104362 issued 6/21/2012)	Nitrogen oxides (NOx) emissions shall not exceed 28.20 pounds per hour (lbs/hr) and 1.41 tons per rolling, 12-month period. Carbon monoxide (CO) emissions shall not exceed 1.18 lbs/hr and 0.06 ton per rolling, 12-month period. Sulfur dioxide (SO2) emissions shall not exceed 10.72 lbs per hour and 0.54 ton/rolling, 12-month period. Volatile organic compounds emissions shall not exceed 1.0 lb/hr and 0.05 ton/rolling, 12-month period. Particulate matter equal to or less than 10 microns in size (PM10) shall not exceed 0.44 lb/hr and 0.02 ton per rolling, 12-month period. See b)(2)a. and b)(2)b. and c)(2).
b.	ORC 3704.03(T)(4)	See b)(2)f.
c.	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-17-11(B)(5)(b)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D).
e.	OAC rule 3745-18-06	See b)(2)c.
f.	40 CFR Part 60 Subpart IIII	See b)(2)d.
g.	OAC rule 3745-114-01 ORC 3704.03(F)	See d)(4).

(2) Additional Terms and Conditions

a. The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to NOx, SO2, VOC and CO emissions from this air contaminant source since the calculated annual emission rates for NOx, SO2, VOC and CO emissions is each less than ten tons per year taking into account the federally enforceable restriction on the number of hours of operation under OAC rule 3745-31-05(D).

b. Permit to install (PTI) P0104362 establishes the following federally enforceable emission limitations based on an hours of operation restriction [c)(2)] and hourly emission limitations for purposes of avoiding Title V applicability:

i. 1.41 tons NOx per rolling, 12-month period;

ii. 0.06 ton CO per rolling, 12-month period;

iii. 0.05 ton VOC per rolling, 12-month period, and

iv. 0.02 ton PM10 per rolling, 12-month period.

c. This emissions unit is exempt from the requirements of OAC rule 3745-18-06, pursuant to OAC rule 3745-18-06(B).

d. This emissions unit is subject to 40 CFR Part 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion. The permittee shall comply with all applicable requirements of 40 CFR Part 60, Subpart IIII. The permittee shall also comply with all applicable requirements of 40 CFR Part 60, Subpart A. (General Provisions) as identified in Table 8 of 40 CFR Part 60, Subpart IIII.

e. All emissions of particulate matter are PM10.

c) Operational Restrictions

(1) The permittee shall combust only diesel fuel that meets the per gallon standards of 40 CFR 80.510.

[OAC rule 3745-77-07(A)(1) and PTI P0104362]

(2) The maximum annual hours of operation for this emissions unit shall not exceed 100 hours per year, based upon a rolling 12-month summation of the operating hours.

This emissions unit has been in operation for more than 12 months and, as such, the permittee has existing records to generate the rolling, 12-month summation of the hours of operation, upon issuance of this permit.

[OAC rule 3745-77-07(A)(1) and PTI P0104362]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain monthly records of the following information for this emissions unit:

a. the number of hours of operation;

b. the calculated monthly emission rate for CO using the following equation: CO emissions (tons) = (# of hours of operation) x (potential hourly CO emissions (lbs/hr)) x (1 ton/2000 lbs) = d(1)a. x (1.18 lbs CO) x (1/2000 lbs);

c. the calculated monthly emission rate for NOx using the following equation: NOx emissions (tons) = (# of hours of operation) x (potential hourly NOx emissions (lbs/hr)) x (1 ton/2000 lbs) = d(1)a. x (28.20 lbs NOx) x (1/2000 lbs);

d. the calculated monthly emission rate of VOC using the following equation: VOC emissions (tons) = (# of hours of operation) x (potential hourly VOC emissions (lbs/hr)) x (1 ton/2000 lbs) = d(1)a. x (1.0 lbs VOC) x (1/2000 lbs);

e. the calculated monthly emission rate of SO2 using the following equation: SO2 emissions (tons) = (# of hours of operation) x (potential hourly SO2 emissions (lbs/hr)) x (1 ton/2000 lbs) = d(1)a. x (10.72 lbs SO2) x (1/2000 lbs);

f. the calculated monthly emission rate of PM10 using the following equation: PM10 emissions (tons) = (# of hours of operation) x (potential hourly PM10 emissions (lbs/hr)) x (1 ton/2000 lbs) = d(1)a. x (0.44 lb PM10) x (1/2000 lbs)

g. the following summations:

i. the rolling, 12-month CO emission rate, in tons;

ii. the rolling, 12-month NOx emission rate, in tons;

iii. the rolling, 12-month VOC emission rate, in tons;

iv. the rolling, 12-month SO2 emission rate, in tons;

v. the rolling, 12-month PM10 emission rate, in tons; and

vi. the rolling, 12-month number of hours of operation.

[OAC rule 3745-77-07(C)(1) and PTI P0104362]

(2) For each day during which the permittee burns a fuel other than diesel fuel the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit. The permittee shall also maintain documentation on the sulfur content of all fuels burned.

[OAC rule 3745-77-07(C)(1) and PTI P0104362]

(3) The permittee shall use records of fuel supplier certification to demonstrate compliance with the operational restriction in c)(1). Records of fuel supplier certification shall include the following information:

a. the name of the oil supplier; and

b. a statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in c)(1) above.

[OAC rule 3745-77-07(C)(1) and PTI P0104362]

(4) The permit to install for emission units B001, B002, J001, P007, P008, P009, P010 and P012 were evaluated based on the actual materials and the design parameters of each emissions unit's exhaust system, as specified by the permittee in the permit to install application. Ohio EPA's “Review of New Sources of Air Toxic Emissions” policy ("Air Toxic Policy") was applied for each pollutant emitted by these emissions units using data from the permit to install application and the AERMOD model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the AERMOD model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the “worst case” pollutant(s):

Pollutant: formaldehyde

TLV (mg/m^3): 368

Maximum Hourly Emission Rate (lbs/hr): 0.40 (permit total)

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 1.14

MAGLC (ug/m^3): 6.47

Pollutant: Acetaldehyde

TLV (mg/m^3): 33.2

Maximum Hourly Emission Rate (lbs/hr): 4.50 (permit total)

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 85.16

MAGLC (ug/m^3): 790

Pollutant: Hexane

TLV (mg/m^3): 176.23

Maximum Hourly Emission Rate (lbs/hr): 0.70 (permit total)

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 2.77

MAGLC (ug/m^3): 4,196

Physical changes to or changes in the method of operation of the emissions units after installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

a. Changes in the composition of the materials used, or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;

b. Changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

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

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of air toxic contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

d. A description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

e. Documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

f. Where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

[PTI P0104362]

e) Reporting Requirements

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

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

i. the rolling, 12-month restriction of 100 hours.

ii. the rolling, 12-month CO emission limitation of 0.06 ton.

iii. the rolling, 12-month NOx emission limitation of 1.41 tons.

iv. the rolling, 12-month VOC emission limitation of 0.05 ton.

v. the rolling, 12-month SO2 emission limitation of 0.54 ton.

vi. the rolling, 12-month PM10 emission limitation of 0.02 ton; and

vii. the sulfur content fuel restriction specified in c)(1).

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

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

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

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

The quarterly reports shall be submitted,electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the appropriate District Office or local air agency).

[OAC rule 3745-77-07(C)(1) and PTI P0104362]

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

[OAC rule 3745-77-07(C)(1) and PTI P0104362]

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

[OAC rule 3745-77-07(C)(1) and PTI P0104362]

f) Testing Requirements

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

a. Emissions Limitation:

1.18 lbs CO/hr

Applicable Compliance Method:

The hourly allowable CO emission limitation was developed by multiplying an emission factor of 0.20 g/hp-hr (manufacturer data) by the maximum power output of 2000 kW, the conversion factors of 1.34 hp/kW and lb/454 gram.

If required, compliance with the hourly allowable CO emission limitation shall be determined according to test Methods 1-4, and 10, as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

[OAC rule 3745-77-07(C)(1) and PTI P0104362]

b. Emissions Limitation:

28.20 lbs NOx/hr

Applicable Compliance Method:

The hourly allowable NOx emission limitation was developed by multiplying an emission standard of 6.40 g/kW-hr (40 CFR 89.112 Table 1) by the maximum power output of 2000 kW and the conversion factor lb/454 gram.

If required, compliance with the hourly allowable NOx emission limitation shall be determined according to test Methods 1-4, and 7, as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

[OAC rule 3745-77-07(C)(1) and PTI P0104362]

c. Emissions Limitation:

1.0 lbs VOC/hr

Applicable Compliance Method:

The hourly allowable VOC emission limitation was developed by multiplying an emission factor of 0.16 g/hp-hr (manufacturer data) by the maximum power output of 2000 kW, the conversion factors of 1.34 hp/kW and lb/454 gram.

If required, compliance with the hourly allowable VOC emission limitation shall be determined according to test Methods 1-4, and 25 or 25A, as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

[OAC rule 3745-77-07(C)(1) and PTI P0104362]

d. Emissions Limitation:

10.72 lbs SO2/hr

Applicable Compliance Method:

The hourly allowable SO2 emission limitation was developed by multiplying an emission factor of 0.004 lb/hp-hr (AP-42, Table 3.4-1, revised 10/96) by the maximum power output of 2000 kW and the conversion factor of 1.34 hp/kW.

If required, compliance with the hourly allowable SO2 emission limitation shall be determined according to test Methods 1-4, and 6 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

[OAC rule 3745-77-07(C)(1) and PTI P0104362]

e. Emissions Limitations:

0.06 ton CO per rolling, 12-month period.

1.41 tons NOx per rolling, 12-month period.

0.05 ton VOC per rolling, 12-month period.

0.54 ton SO2/rolling, 12-month period.

0.02 ton PM10 per rolling, 12-month period

Applicable Compliance Method:

Compliance with the ton per rolling 12-month period emission limitations above shall be demonstrated by the record keeping requirements established in d)(1) of this permit.

[OAC rule 3745-77-07(C)(1) and PTI P0104362]

Emissions Limitation: 0.44 lb PM10/hr

Applicable Compliance Method:

The hourly allowable PM10 emission limitation was developed by multiplying an emission factor of 0.075 g/hp-hr (manufacturer data) by the maximum power output of 2000 kW, the conversion factors of 1.34 hp/kW and lb/454 gram.

If required, compliance with the hourly allowable PM10 emissions limitation shall be determined according to test Methods 201 and 202, as set forth in 40 CFR Part 51, Appendix M.

[OAC rule 3745-77-07(C)(1) and PTI P0104362]

f. Emissions Limitation:

Visible PE from the stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with OAC rule 3745-17-03(B)(1).

[OAC rule 3745-77-07(C)(1) and PTI P0104362]

g) Miscellaneous Requirements

(1) None.

8. P801, Equipment Leaks-F004

Operations, Property and/or Equipment Description:

fugitive VOC emissions from equipment leaks

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI P0104362 issued 6/21/2012)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-09(DD) and 40 CFR Part 60, Subpart VV. Volatile organic compound (VOC) emissions shall not exceed 8.30 tons/yr.
b.	OAC rule 3745-21-09(DD)	See b)(2)a. and e)(1).
c.	40 CFR Part 60 Subpart VVa; Standards of Performance for equipment leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry (SOCMI) for which construction, reconstruction, or modification commenced after 11/7/06.	The facility is subject to the provisions of Subpart VVa for equipment leaks of VOC.
d.	40 CFR 60.482-2a	Equipment leak standards for pumps in light liquid service
e.	40 CFR 60.482-3a	Equipment leak standards for compressors.
f.	40 CFR 60.482-4a	Equipment leak standards for pressure relief devices in gas/vapor service
g.	40 CFR 60.482-5a	Equipment leak standards for sampling connection systems
h.	40 CFR 60.482-6a	Equipment leak standards for open-ended valves or lines

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
i.	40 CFR 60.482-7a	Equipment leak standards for valves in gas/vapor service and in light liquid service
j.	40 CFR 60.482-8a	Equipment leak standards for pumps, valves, and connectors in heavy liquid service; and pressure relief devices in light liquid or heavy liquid service
k.	40 CFR 60.482-9a	Standards for delay of repair of equipment leaks
l.	40 CFR 60.482-10a	Standards for closed vent systems and control devices.
m.	40 CFR 60.482-11a	Equipment leak standards for connectors in gas/vapor service and light liquid service
n.	40 CFR 60.483-1a	Alternative standards for valves, via percentage of valves leaking (≤ 2%)
o.	40 CFR 60.483-2a	Alternative standards for valves, via skip period leak detection and repair
d.	40 CFR Part 65, Subpart F (40 CFR 65.100-139)	See b)(2)b.

(2) Additional Terms and Conditions

a. The permittee shall employ best available control measures for the emissions unit for the purpose of ensuring compliance with the above-mentioned applicable requirements. The permittee has committed to implementing a Leak Detection and Repair (LDAR) program to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other equally-effective control measures to ensure compliance.

The permittee shall include the appropriate process equipment and regulated components in the LDAR program. The LDAR program shall comply with the appropriate provisions (including operational restrictions, monitoring and Record keeping, reporting, and testing) of OAC rule 3745-21-09(DD) (Leaks from Process Units that Produce Organic Chemicals) and 40 CFR Part 60, Subpart VV (Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry). In the case of overlapping provisions, the permittee shall comply with the more stringent requirement.

b. Owners or operators may choose to comply with the provisions of 40 CFR Part 65, Subpart F, to satisfy the requirements of 40 CFR 60.482-1a through 60.487a for an affected facility. When choosing to comply with 40 CFR Part 65, Subpart F, the requirements of 40 CFR 60.485a(d), (e) and (f) and 40 CFR 60.486a(i) and

(j) still apply. Other provisions applying to an owner or operator who chooses to comply with 40 CFR Part 65 are provided in 40 CFR 65.1. [40 CFR 60.480(e)]

Owners or operators who choose to comply with 40 CFR Part 65, Subpart F must also comply with 40 CFR 60.1, 60.2, 60.5, 60.6, 60.7(a)(1) and (4), 60.14, 60.15, and 60.16 for that equipment. All sections and paragraphs of subpart A of Part 60 that are not mentioned in this paragraph do not apply to owners or operators of equipment subject to 40 CFR Part 60, subpart VVa complying with 40 CFR Part 65, Subpart F, except that provisions required to be met prior to implementing 40 CFR Part 65 still apply. Owners and operators who choose to comply with 40 CFR Part 65, Subpart F, must comply with 40 CFR Part 65, Subpart A.

c) Operational Restrictions

(1) When a leak is detected a weatherproof identification tag with the equipment identification number and the date detected shall beattached to the leaking equipment, valve, or seal. A record of the date the leak was first detected,the date of any attempted repair,and the date of final repair shall be entered into a log maintained for this purpose. Repair of a leak shall be attempted as soon as possible after it is detected.

[40 CFR 60.486a(b) and (c)]

(2) Each compressor that is not equipped with a closed vent system capable of capturing and transporting any leakage from the drive shaft to a process, fuel gas system, or control device shall be equipped with a barrier fluid system to prevent VOC leakage to the atmosphere. Each barrier fluid system shall be equipped with a sensor that will detect failure of the seal and barrier fluid system; and the sensor shall be equipped with an audible alarm if it cannot be checked daily.

[40 CFR 60.482-3a]

(3) Except during pressure releases, each pressure relief device shall be operated with “no detectable emissions”, as indicated by an instrument reading of less than 500 ppm above background, as measured by Method 21 in 40 CFR 60 Appendix A and in accordance with 40 CFR 60.485a(c). A pressure relief device shall be returned to a condition of “no detectable emissions” as soon as practicable following a pressure release, but no later than 5 days after the release.Any pressure relief device that is equipped with a closed-vent system capable of capturing and transporting leakage through the pressure relief device to a control device, the pipeline, process heater, or flare is excluded from these requirements.

[40 CFR 60.482-4a]

(4) A first attempt at repair of a leak shall be made no later than 5 days after each leak is detected. The leak shall be repaired as soon as practicable, but (with the exception of a pressure relief device, requiring repair within 5 days of release), not later than 15 days after it is detected unless meeting the requirements of 40 CFR 60.482-9a, for delay of repair.

[40 CFR 60.482-2a(c) for pumps], [40 CFR 60.482-3a(g) for compressors], [40 CFR 60.482-4a(b) for pressure relief devices], [40 CFR 60.482-7a(d) for valves], [40 CFR

60.482-8a(c) for pumps/valves/connectors], [40 CFR 60.482-10a(g) for closed vent systems & control device], and [40 CFR 60.482-11a(d) for connectors]

(5) Each open ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve which shall seal the open end at all times, except during operations requiring process fluid flow. If equipped with a second valve, the valve on the process fluid end shall be closed before the second valve is closed. Where a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves, but shall seal the open end at all other times.

[40 CFR 60.482-6a]

[OAC rule 3745-77-07(A)(1) and PTI P0104362]

d) Monitoring and/or Recordkeeping Requirements

(1) The following information shall be recorded in a log that is kept in a readily accessible location.

	Applicable Rule	Requirements
a.	40 CFR 60.486a	Recordkeeping requirements
b.	40 CFR 60.486a(b)	Requirements to attach a weatherproof identification tag to leaking equipment
c.	40 CFR 60.486a(c)	Requirements to maintain a log of each leak detected for 2 years and the information to be maintained
d.	40 CFR 60.486a(d)	Required records for the design for the closed vent systems and control devices and period of time when they were not in operation as required
e.	40 CFR 60.486a(e)	Required records for equipment identification and records for each leak test conducted (dates and results)
f.	40 CFR 60.486a(f)	Required records for valves and pumps identified as unsafe or difficult to monitor
g.	40 CFR 60.486a(g)	Records required for valves where complying with 40 CFR 60.483-2a for skip leak detection and repair
h.	40 CFR 60.486a(h)	Records required for design criteria for the seal for pumps and compressors, i.e., the barrier fluid system and sensor
i.	40 CFR 60.480a(d); and 40 CFR 60.486a(i) and (j)	Records required for exemptions from the leak detection requirements, the analysis/data demonstrating that a piece of equipment is “not in VOC service” and the analysis demonstrating the design capacity of the process unit.

(2) Theancillary equipment, compressors, pumps, pressure relief devices, sampling connection systems, open end valves or lines, valves, flanges, and any other connectors in VOC service, shall be monitored to demonstrate that there are“no detectable emissions” using Method 21, 40 CFR Part 60, Appendix A; and the records of these inspections shall be maintained for 2 years following the date of inspection and shall be made available upon request.

[40 CFR 60.485a(b) and 40 CFR 60.486a(c)]

(3) Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with "no detectable emissions", as indicated by an instrument reading of less than 500 ppm above background, measured by Method 21 from 40 CFR 60 Appendix A. After each pressure release, the pressure release device shall be returned to a condition of "no detectable emissions" as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 60.482-9a for delay of repair. Each pressure relief device in gas/vapor service shall be monitored in accordance with Method 21 unless it is routed to a process or fuel gas system, or is equipped with a closed-vent-system that captures and transports leakage through a pressure release device to a control devicemeeting the requirements of 40 CFR 60.482-10a.

The pressure relief device shall be monitored to confirm conditions of "no detectable emissions" no later than 5 days after the pressure release. As soon as practicable, but no later than 5 calendar days after each pressure release (except as allowed per 40 CFR 60.482-9a for delay or repair), the pressure relief device shall be returned to a condition of "no detectable emissions", as indicated by a reading of less than 500 ppm above background.

Where there is a rupture disk upstream of the pressure relief device, a new rupture disk shall be installed no later than 5 calendar days after the pressure release, unless meeting the requirements of 40 CFR 60.482-9a for delay of repair.

[40 CFR 60.482-4a]

(4) Each pump in light liquid service shall be <u>monitored monthly</u> for leaks, in accordance with Method 21 at 40 CFR 60 Appendix A, <u>except</u> where it can be demonstrated that:

a. The pump and barrier fluid system meet all of the following requirements:

i. The pump is equipped with a dual mechanical seal system that is:

(a) operated with a barrier fluid that is maintained, at all times, at a pressure that is greater than the pump stuffing box pressure; or

(b) is equipped with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed vent system to a control device meeting the requirements of 40 CFR 60.482-10a; or

(c) is equipped with a system that purges the barrier fluid into a process stream with zero VOC emissions; and

ii. the barrier fluid system is in heavy liquid service or is not in VOC service; and

iii. the barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both; and

iv. each pump is checked by visual inspection each calendar week for indications of liquids dripping from the pump seals; and if there is evidence of leakage is monitored within 5 days following the inspection using Method 21; and

v. each sensor is checked daily or is equipped with an audible alarm; or

b. the pump is designated for "no detectable emissions", as indicated by a reading of less than 500 ppm above background, using Method 21, and the pump has no external actuated shaft penetrating the pump housing and is monitored (in accordance with Method 21) initially upon designation, annually, and upon request of the Director; or

c. the pump is routed to a process or fuel gas system or connected by a closed vent system to a control device meeting the requirements of 40 CFR 60.482-10a; or

d. the pump is designated as unsafe-to-monitor and has been demonstrated to meet the requirements of this determination as required in 40 CFR 60.482-2a(g).

Each pump in light liquid service shall be visually inspected each calendar week for indications of liquids dripping from the pump seal, except as provided in 40 CFR 60.482-1a(f) for a batch process. A pump located at an unmanned plant site is exempt from the weekly visual inspections; however each pump must be visually inspected as often as practicable and at least monthly.

For a pump, an instrument reading of 2,000 ppm or greater is a "leak detected". When a leak is detected or a visual inspection determines liquids dripping from the pump, it shall be repaired as soon as practicable, but not later than 15 days after it is detected unless meeting the requirements of 40 CFR 60.482-9a for delay of repair. A first attempt repair of a detected leak shall be made within 5 days of detection.

[40 CFR 60.482-2a(a) through (h)]

(5) Each compressor shall be equipped with a seal system and a barrier fluid system equipped with a sensor that will detect failure of the seal and/or barrier fluid system, except where meeting the requirements for a closed-vent-system in 40 CFR 60.482-10a,that captures and transports leakage from the compressor drive shaft to a process or fuel gas system or control device, or is designed and designated for "no detectable emissions". The seal/barrier fluid system must meet the requirements of 40 CFR 60.482-3a(a) through (d) and must be visually inspected dailyor be equipped a sensor with an audible alarm. A leak is detected when the sensor indicates a failure of the seal/barrier systems. A compressor that can be demonstrated to operate with "no detectable emissions",as indicated by a reading of less than 500 ppm above background, in accordance with 40 CFR 60.485a(c), can be monitored initially upon designation and annually thereafter; otherwise, monthly monitoring, in accordance with 40 CFR 60.485a(b), will be required.

When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 days after it is detected unless meeting the requirements of 40 CFR 60.482-9a for delay of repair. A first attempt repair of a detected leak shall be made within 5 days of detection.

[40 CFR 60.482-3a(a) through (i)]

(6) Each valve in gas/vapor service and light liquid service shall be monitored monthly, in accordance with 40 CFR 60.485a(b) for leaks, with the following exception:

a. the valve is designated for "no detectable emissions", as indicated by a reading of less than 500 ppm above background in accordance with 40 CFR 60.485a(c), and has no external actuating mechanism in contact with the process fluids, it may be monitored initially upon designation and annually in accordance with 40 CFR 60.485a(c) thereafter; or

b. alternative standards can be implemented for valve leak detection, in accordance with 40 CFR 60.483-1a, based on 2.0% of valves leaking and where this option has been approved, by the regulating authority; or

c. the valve has been designated as unsafe-to-monitor as described in 40 CFR 60.486a(f)(1) and in accordance with 40 CFR 60.482-7a(g); or

d. the valve has been designated as difficult-to-monitor as described in 40 CFR 60.486a(f)(2) and in accordance with 40 CFR 60.482-7a(h).

Any valve for which a leak is not detected for 2 consecutive months may be monitored the first month of every quarter, beginning with the next quarter, and until a leak is detected, where monitoring shall again be required monthly until another successive 2 months of no leakage has been documented. As an alternative to monitoring the first month of every quarter, the owner/operator may subdivide the process units into 2 or 3 subgroups of valves and monitor each subgroup in a different month of the quarter provided each group is monitored every 3 months and records are maintained of the subgroups; if a leak is detected, the valve must be monitored monthly until a leak is not detected for 2 successive months.

An instrument reading of 500 ppm or greater is a "leak detected". If a leak is detected it shall be repaired as soon as practicable, but not later than 15 days after it is detected, unless meeting the requirements of 40 CFR 60.482-9a for delay of repair. A first attempt repair of a detected leak shall be made within 5 days of detection and would include (but not be limited to) work practices identified in 40 CFR 60.482-7a(e).

[40 CFR 60.482-7a(a) through (h)]

(7) Each connector in gas/vapor service and in light liquid service shall be monitored for leaks within 12 months after initial startup, following any process change for the connectors involved, and in accordance with 40 CFR 60.482-11a. Except as required for closed-vent-systems, all such connectors shall be monitored according to the following schedule:

a. if the percent of leaking connectors in the process unit was greater than or equal to 0.5%, then subsequent monitoring to detect leaks must be conducted within 12 months; or

b. if the percent of leaking connectors in the process unit was greater than or equal to 0.25% but less than 0.5%, then subsequent monitoring to detect leaks must be

conducted within 4 years, with the option to monitor at least 40% of the connectors within 2 years of the start of the monitoring period, provided all the connectors are monitored by the end of the 4-years; or

c. if the percent of leaking connectors in the process unit was less than 0.25%, the frequency of monitoring shall/may follow the schedule calculated in accordance with 40 CFR 60.482-11a(b)(3)(iii); and

d. records must be maintained for the start date and end date of each monitoring period, and the monitoring results to support the scheduled used.

If an instrument reading greater than or equal to 500 ppm is measured, a leak is detected.

[40 CFR 60.482-11a]

(8) Each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system meeting the requirements of 40 CFR 60.482-5a(b), except in situ sampling systems and sampling systems without purges are exempt from these requirements.

[40 CFR 60.482-5a]

(9) Closed-vent-systems and control devices shall be operated in compliance with the following provision:

a. Vapor recovery systems (e.g., condensers and absorbers) shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95% or greater, or to an exit concentration of 20 ppmv, whichever is less stringent.

b. Enclosed combustion devices shall be designed and operated to reduce VOC emissions vented to them with an efficiency of 95% or greater, or to an exit concentration of 20 ppmv, on a dry basis, corrected to 3% oxygen, whichever is less stringent; or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 °C.

c. Flares shall comply with the requirements of 40 CFR 60.18 and 40 CFR 60.485a(g).

d. Each control device shall be monitored to ensure they are operated and maintained in conformance with their design.

e. Each closed-vent-system shall be inspected initially and <u>annually</u> thereafter in accordance with 40 CFR 60.482-10a(f) and monitored in accordance with 40 CFR 60.485a(b). A vapor recovery system or closed-vent-system is exempt from this inspection requirement if operated under a vacuum.

f. Leaks, as indicated by an instrument reading of 500 ppmv above background or by visual inspection, shall be repaired as soon as practicable, but not later than 15 days after it is detected, unless meeting the requirements of delay of repair in accordance with 40 CFR 60.482-10a(h). A first attempt repair of a detected leak shall be made within 5 days of detection.

g. Closed-vent-systems and control devices shall be operated at all times when emissions may be vented to them.

[40 CFR 60.482-10a]

(10) If evidence of a potential leak is found by visual, audible, olfactory, or any other detection methods at pumps, valves, and/or connectors in heavy liquid service; and pressure relief devices in light liquid or heavy liquid service; and the evidence is not eliminated within 5 days of detection, the permittee shall follow these procedures:

a. Monitor the equipment within 5 days by the appropriate method specified in 40 CFR 60.485a. An instrument reading of 10,000 ppm or greater is a "leak detected".

b. If a leak is detected it shall be repaired as soon as practicable, but not later than 15 days after it is detected unless meeting the requirements of 40 CFR 60.482-9a. A first attempt at repair shall be made within 5 days of detection and would include (but not be limited to) work practices identified in 40 CFR 60.482-2a(c)(2) and 40 CFR 60.482-7a(e).

[40 CFR 60.482-8a]

(11) The permittee may monitor at any time during the specified (per rule) monitoring period (i.e., monthly, quarterly, annually) which is a reasonable interval after completion of the previous monitoring event, as long as the time interval meets these requirements:

a. when monitoring is conducted quarterly, monitoring events must be separated by at least 30 calendar days;

b. when monitoring is conducted annually, monitoring events must be separated by at least 120 calendar days;

c. when monitoring is conducted 3 quarters per year,monitoring events must be separated by at least 90 calendar days; and

d. when qualified and monitoring is conducted semiannually (every 2 quarters), monitoring events must be separated by at least 60 calendar days.

[40 CFR 60.482-1a(f)(3)]

(12) The permittee shall record and maintain all of the records required to document visual inspections and monitoring of all ancillary equipment, compressors, pumps, pressure relief devices, sampling connection systems, open end valves or lines, valves, flanges, and any other connectors in VOC service, as identified above, using a list of equipment identification numbers assigned to each potential point of leakage. The permittee shall also comply with the recordkeeping requirements and maintain the records identified in 40 CFR 60.486a, including the date each leak was detected and dates of attempted and final repairs.

[40 CFR 60.486a]

(13) Any determination that a piece of ancillary equipment is unsafe or difficult to monitor shall be documented to meet the appropriate requirements identified in Part 60, Subpart VVa, e.g., as identified in: 40 CFR 60.482-2a(g) for pumps; 40 CFR 60.482-6a(d) or (e) for open-ended valves or lines; 40 CFR 60.482-7a(g) and (h) for valves; 40 CFR 60.482-10a(j), (k), or (l) for closed-vent-systems; and 40 CFR 60.482-11a(e) for connectors. Records must be maintained for each determination, in accordance with 40 CFR 60.486a(f). Any delay of repair shall meet the requirements of 40 CFR 60.482-9a.

[40 CFR 60.482-2a through 11a]

(14) The permittee shall maintain a record of the following information for each monitoring event required to demonstrate compliance with the standards for pumps in light liquid service in 40 CFR 60.482–2a; compressors in 40 CFR 60.482–3a; valves in gas/vapor and light liquid service in 40 CFR 60.482–7a; pumps, valves, and connectors in heavy liquid service and pressure relief devices in light liquid and heavy liquid service in 40 CFR 60.482–8a; connectors in gas/vapor and light liquid service in 40 CFR 60.482–11a; and valves in 40 CFR 60.483–2a:

a. monitoring instrument identification;

b. operator identification;

c. equipment identification;

d. date of monitoring; and

e. instrument reading.

[40 CFR 60.486a(a)(3)]

(15) When each leak is detected as specified in 40 CFR 60.482–2a for pumps in light liquid service; 40 CFR 60.482–3a for compressors; 40 CFR 60.482–7a for valves in gas/vapor and light liquid service; 40 CFR 60.482–8a for pumps, valves, and connectors in heavy liquid service and pressure relief devices in light liquid and heavy liquid service; 40 CFR 60.482–11a for connectors in gas/vapor and light liquid service; and 40 CFR 60.483–2a for valves, the following requirements apply:

a. the leaking equipment shall be marked with a clearly visible, weatherproof tag showing the equipment identification number;

b. the tag identification on a valve may be removed after it has been monitored for 2 successive months as specified in 40 CFR 60.482–7a(c) and no leak has been detected during those 2 months;

c. the tag identification on a connector may be removed after it has been monitored as specified in 40 CFR 60.482–11a(b)(3)(iv) and no leak has been detected during that monitoring; and

d. the tag identification on all other equipment other than a valve or connector may be removed after it has been repaired.

[40 CFR 60.486a(b)]

(16) The following information shall be recorded in a log for each leak that is detected and these records shall be kept for 2 years in a readily accessible location:

a. the identification numbers of the monitoring instrument and leaking equipment;

b. the name of the operator conducting the monitoring;

c. the date each leak was detected and the date(s) of each attempt to repair them;

d. the repair methods applied in each attempt to repair each leak;

e. the maximum instrument reading measured by Method 21 of Appendix A–7 of Part 60 at the time the leak is successfully repaired or at the time it is determined to be non-repairable (except where a pump is repaired by eliminating dripping liquids);

f. identification of equipment exceeding the applicable leak detection limit 15 days after discovery of the leak and the maximum instrument reading measured by Method 21;

g. the reason for any delay of repair, where a leak is not repaired within 15 calendar days after being discovered;

h. if a decision has been made that repair of a leak cannot be completed without a process shutdown, the signature of the person authorized to make that determination;

i. the expected date of successful repair of each leak that is not repaired within 15 days;

j. dates of process unit shutdowns that occur while the equipment is unrepaired; and

k. the date of successful repair of each leak.

[40 CFR 60.486a(c)]

(17) The following information pertaining to the design requirements for closed vent systems and control devices shall be recorded and kept in a readily accessible location:

a. detailed schematics, design specifications, and piping and instrumentation diagrams;

b. the dates and descriptions of any changes in the design specifications;

c. a description of the parameter(s) monitored, as required in 40 CFR 60.482–10a(e), to ensure that control devices are operated and maintained in conformance with their design;

d. an explanation of why the parameter(s) was/were selected for the monitoring;

e. periods when the closed vent systems and control devices required in 40 CFR 60.482–2a, 40 CFR 60.482–3a, 40 CFR 60.482–4a, and 40 CFR 60.482–5a are not operated as designed, including periods when a flare pilot light does not have a flame; and

f. the dates of startups and shutdowns of the closed vent systems and control devices required per 40 CFR 60.482–2a, 40 CFR 60.482–3a, 40 CFR 60.482–4a, and 40 CFR 60.482–5a.

[40 CFR 60.486a(d) and 40 CFR 60.482–10a]

(18) The following information pertaining to all equipment subject to the requirements in 40 CFR 60.482–1a to 40 CFR 60.482–11a shall be recorded in a log that is kept in a readily accessible location:

a. a list of identification numbers for equipment subject to the requirements of Part 60 Subpart VVa;

b. a list of identification numbers for equipment that are designated for "no detectable emissions" under the provisions of 40 CFR 60.482–2a(e) for pumps in light liquid service; 40 CFR 60.482–3a(i) for compressors;and 40 CFR 60.482–7a(f) for valves in gas/vapor and light liquid service; and the designation of equipment as subject to these requirements signed by the person authorized to make this determination;

c. a list of equipment identification numbers for pressure relief devices required to comply with 40 CFR 60.482–4a;

d. for each compliance demonstration conducted as required in 40 CFR 60.482–2a(e), for pumps in light liquid service; 40 CFR 60.482–3a(i),for compressors; 40 CFR 60.482–4a,for pressure relief devices; and 40 CFR 60.482–7a(f),for valves in gas/vapor and light liquid service:

i. the dates of each compliance test;

ii. the background level measured during each compliance test; and

iii. the maximum instrument reading measured at the equipment during each compliance test;

e. a list of identification numbers for equipment in vacuum service;

f. a list of identification numbers for equipment that the permittee designates as operating in VOC service less than 300 hr/yr in accordance with 40 CFR 60.482–1a(e), a description of the conditions under which the equipment is in VOC service, and rationale supporting the designation that it is in VOC service less than 300 hr/yr;

g. the date and results of the weekly visual inspection for indications of liquids dripping from pumps in light liquid service;

h. records of the information for monitoring instrument calibrations conducted according to sections 8.1.2 and 10 of Method 21 of Appendix A–7 of Part 60 and 40 CFR 60.485a(b).

i. date of calibration and initials of operator performing the calibration;

ii. calibration gas cylinder identification, certification date, and certified concentration;

iii. instrument scale(s) used;

iv. a description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value in accordance with section 10.1 of Method 21 of appendix A–7 of this part;

v. results of each calibration drift assessment required by 40 CFR 60.485a(b)(2) (i.e., the instrument reading for calibration at end of monitoring day and the calculated percent difference from the initial calibration value); and

vi. if the permittee makes their own calibration gas, a description of the procedure used;

i. the connector monitoring schedule for each process unit as specified in 40 CFR 60.482–11a(b)(3)(v); and

j. the records of each release from a pressure relief device subject to the requirements of 40 CFR 60.482–4a.

[40 CFR 60.486a(e)]

(19) The following information pertaining to all valves subject to the requirements of 40 CFR 60.482–7a(g) and (h), all pumps subject to the requirements of 40 CFR 60.482–2a(g), and all connectors subject to the requirements of 40 CFR 60.482–11a(e) shall be recorded in a log that is kept in a readily accessible location:

a. a list of identification numbers for valves, pumps, and connectors that are designated as unsafe-to-monitor, an explanation for each valve, pump, or connector stating why the valve, pump, or connector is unsafe-to-monitor, and the plan for monitoring each valve, pump, or connector; and

b. a list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve.

[40 CFR 60.486a(f)]

(20) The following information shall be recorded for valves complying with the alternative monitoring standards for valves, where after 2 consecutive quarterly leak detection periods the percent of valves leaking is less than or equal to 2.0%:

a. a schedule of the monitoring, which shall meet the requirements of 40 CFR 60.483–2a(b); and

b. the percent of valves found leaking during each monitoring period.

[40 CFR 60.486a(g)]

(21) The following information shall be recorded in a log that is kept in a readily accessible location:

a. the design criterion for each sensor that is used to indicate failure of the seal system or barrier fluid system in a pump, as required in 40 CFR 60.482–2a(d)(5), and/or in a compressor, as required by 40 CFR 60.482–3a(e)(2); and explanation of the design criterion; and

b. any changes to this criterion and reasons for the changes.

[40 CFR 60.486a(h)]

(22) The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in 40 CFR 60.480a(d):

a. an analysis demonstrating the design capacity of the affected facility;

b. a statement listing the feed or raw materials and products from the affected facilities; and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol; and

c. an analysis demonstrating that equipment is not in VOC service.

[40 CFR 60.486a(i)]

(23) Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location.

[40 CFR 60.486a(j)]

e) Reporting Requirements

(1) The owner/operator shall submit semiannual reports that include the information identified in 40 CFR 60.487a and the report shall include the number of leaks detected during the reporting period, the identification of the equipment where each leak was detected, and the dates of attempted and final repair. The report shall include the date of any leak that was detected and not repaired within 15 days of discovery, the reason for the delay of repair, the date of final repair, and any Method 21 test results conducted for the leak during the reporting period.

[40 CFR 60.487a]

(2) All subsequent semiannual reports shall include the following information, summarized from the recordkeeping requirements of 40 CFR 60.486a and identified for each process unit subject to Part 60 Subpart VVa:

a. For each month during the semiannual reporting period the semiannual report must include the following information:

i. number of valves for which leaks were detected as described in 40 CFR 60.482–7a(b) or 40 CFR 60.483–2a;

ii. number of valves for which leaks were not repaired as required in 40 CFR 60.482–7a(d)(1);

iii. number of pumps for which leaks were detected as described in 40 CFR 60.482–2a(b), (d)(4)(ii)(A) or (B), or (d)(5)(iii);

iv. number of pumps for which leaks were not repaired as required in 40 CFR 60.482–2a(c)(1) and (d)(6);

v. number of compressors for which leaks were detected as described in 40 CFR 60.482–3a(f);

vi. number of compressors for which leaks were not repaired as required in 40 CFR 60.482–3a(g)(1);

vii. number of connectors for which leaks were detected as described in 40 CFR 60.482–11a(b);

viii. number of connectors for which leaks were not repaired as required in 40 CFR 60.482–11a(d); and

ix. the facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible;

b. dates of process unit shutdowns which occurred within the semiannual reporting period; and

c. revisions to items reported in the initial or subsequent semiannual compliance reports if changes have occurred since the last compliance report.

[40 CFR 60.487a(a) and (c)]

(3) If the permittee elects to comply with the provisions of 40 CFR 60.483–1a or 40 CFR 60.483–2a, the alternative standards for valves demonstrated to have less than or equal to 2.0% of the facility valves leaking,the permittee shall notify the appropriate district or local office of the Ohio EPA Division of Air Pollution Control of the intention to demonstrate compliance with the alternative standard at least 90 days before implementing either of these provisions.

[40 CFR 60.487a(d)]

(4) The permittee shall report the results of all performance tests in accordance with 40 CFR 60.8 of the General Provisions. The provisions of 40 CFR 60.8(d) do not apply to affected facilities subject to the provisions of Subpart VVa except that thepermittee must notify theappropriate district or local office of the Ohio EPA Division of Air Pollution

Control of the schedule for the initial performance tests at least 30 days before the initial compliance demonstration.

[40 CFR 60.487a(e)]

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

[OAC rule 3745-77-07(C)(1) and PTI P0104362]

f) Testing Requirements

(1) The following testing requirements from Part 60 Subpart VVa apply to this emissions unit:

	Applicable Rule	Requirements
a.	40 CFR 60.485a	Test methods and procedures
b.	40 CFR 60.485a(b)	Method 21 shall be used to determine the presence of a leak in accordance with this paragraph
c.	40 CFR 60.485a(c)	Method 21 shall be used for determining compliance with “no detectable emissions” in accordance with this paragraph
d.	40 CFR 60.485a(d)	Demonstration that a piece of equipment is “not in VOC service”
e.	40 CFR 60.485a(e)	Demonstration that a piece of equipment is “in light liquid service”
f.	40 CFR 60.485a(f)	Sample used to demonstrate “in VOC or liquid service” shall be representative of the process fluid or gas used in the determination.
g.	40 CFR 60.485a(g)	Standards for a flare

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

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

8.30 tons VOC/yr

<u>Applicable Compliance Method:</u>

The annual emission limitation was developed using the estimated component count based on similar ethanol plants and emission factors from 'Protocol for Equipment Leak Emission Estimates', EPA-453/R-95-017, Table 5-2. No testing is specifically required by this permit but, if appropriate, may be requested pursuant to OAC rule 3745-15-04(A). Such testing would be required to comply with methods described in OAC rule 3745-21-10 for organic compounds.

[OAC rule 3745-77-07(C)(1) and PTI P0104362]

g) Miscellaneous Requirements

(1) None.

9. P802, Wetcake Pad - F007

Operations, Property and/or Equipment Description:

wetcake storage and loadout

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

(1) b)(1)b.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05 (A)(3), as effective 11/30/01 (PTI P0107584 issued 6/29/2011)	2.19 tons volatile organic compound (VOC)/yr See b)(2)a.
b.	OAC rule 3745-31-05 (A)(3), as effective 12/1/06 (PTI P0107584 issued 6/29/2011)	See b)(2)b.
c.	OAC rule 3745-31-05(F)	See c)(1).

(2) Additional Terms and Conditions

a. The following requirements contained in this permit satisfy the BAT requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001:

i. compliance with the following limitations:

(a) 2.19 tons VOC/yr*

ii. compliance with the following regulations:

(a) OAC rule 3745-31-05(F)

*The hourly VOC emission rate above represents the potential to emit (defined as the maximum capacity to emit an air pollutant under the physical and operational design). Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure compliance with this emission limitation.

On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that

BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, the requirements of 3745-31-05(A)(3) as effective November 30, 2001 will no longer apply.

It should be noted that the requirements established pursuant to OAC rule 3745-31-05(F) will remain applicable after the above SIP revisions are approved by U.S. EPA.

b. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3)(a), as effective December 1, 2006, do not apply to the VOC emissions from this air contaminant source since the potential to emit (PTE) is less than 10 tons per year.

c) Operational Restrictions

(1) Wetcake that shows any visible signs of spoilage (i.e. mold/fungal growth) shall be immediately (within 24 hrs) removed from the wetcake storage area. Material removed from the storage area may either be recycled back into the system or removed off the property.

[OAC rule 3745-77-07(A)(1) and PTI P0107584]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall perform daily visible checks for any sign of wetcake spoilage (i.e. mold/fungal growth). The presence or absence of any spoilage shall be noted in an operations log, as well as the date and time the daily check was performed. If the presence of spoilage is observed, the permittee shall also note the following in the operations log:

a. the total duration the spoiled material remained on the pad.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

e) Reporting Requirements

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

[OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

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

a. Emission Limitation:
2.19 tons VOC/yr

Applicable Compliance Method:
The annual limitation represents the potential to emit for this emissions unit. The PTE for VOC for this emission unit was calculated by multiplying an emission factor of 0.0083 lbs VOC/ton of wetcake (Diversified Energy Facility in Morris, MN, stack test date: November 2, 2004) by a maximum annual wetcake throughput of 522,972 tons/yr.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

g) Miscellaneous Requirements

(1) None.

10. P901, EU001 - EU003

Operations, Property and/or Equipment Description:

grain receiving by rail and truck

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

(1) b)(1)c.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) (PTI P0110755 issued 08/23/2012)	The baghouse controlling this emissions unit shall achieve an outlet emission rate of not greater than 0.004 grain of particulate matter equal to or less than 10 microns in size (PM10) per dry standard cubic foot of exhaust gases (gr/dscf). 5.96 tons PM10/year Visible particulate emissions (PE) from the baghouse stack shall not exceed 0% opacity. See b)(2)a. and c)(1)
b.	OAC rule 3745-31-05 (A)(3), as effective 11/30/01 (PTI P0110755 issued 08/23/2012)	4.63 tons fugitive PM10/year See b)(2)b.
c.	OAC rule 3745-31-05 (A)(3), as effective 12/1/06	See b)(2)c.
d.	OAC rule 3745-17-07 (B)	See b)(2)d.
e.	OAC rule 3745-17-08 (B)	See b)(2)e.
f.	40 CFR Part 60, Subpart DD	Visible fugitive PE shall not exceed 5% opacity from any truck or rail loading. Visible fugitive PE shall not exceed 0% opacity from any grain handling operations. See b)(2)f.

(2) Additional Terms and Conditions

a. This permit establishes the following federally enforceable emission limitations for the purpose of limiting the potential to emit (PTE) for PM_{10} to avoid Prevention of Significant Deterioration (PSD) and Title V applicability. The federally enforceable emission limitations are based on the operational restrictions contained in c)(1) which require control equipment and process control:

i. 0.004 grPM10/dscf and 5.96 tpy PM10*;

ii. Visible particulate PE from the baghouse stack shall not exceed 0% opacity.

*All stack emissions of particulate matter are PM10.

b. The following requirements contained in this permit satisfy the BAT requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001:

i. compliance with the following limitations:

(a) 4.63 tons fugitive PM10/year;

(b) Visible fugitive PE shall not exceed 5% opacity from any truck or rail loading; and

(c) Visible fugitive PE shall not exceed 0% opacity from any grain handling operations.

ii. compliance with the following regulations:

(a) OAC rule 3745-31-05(D)

(b) 40 CFR Part 60, Subpart DD

On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, the requirements of 3745-31-05(A)(3) as effective November 30, 2001 will no longer apply.

It should be noted that the emission limitations and control requirements established pursuant to OAC rule 3745-31-05(D) will remain applicable after the above SIP revisions are approved by U.S. EPA.

c. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3)(a) do not apply to the PM10 emissions fromthis air contaminant source since the potential to emit for PM10 emissions is less than 10 tons per year.

d. This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(B), pursuant to OAC rule 3745-17-07(B)(11)(e).

e. This emissions unit is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B).

f. The emissions limitations specified by this rule are as stringent as or less stringent than the emissions limitations established pursuant to OAC rule 3745-31-05(D).

c) Operational Restrictions

(1) The following operational restrictions have been included in this permit for the purpose of establishing federally enforceable requirements which limit PTE [see b)(2)a.]:

a. the use of a partial enclosure for grain receiving;

b. the use of a total enclosure for transferring/conveying and storage; and

c. the use of a baghouse for grain receiving, transferring/conveying and storage achieving a maximum outlet concentration of 0.004 gr/dscf for PM10.

[OAC rule 3745-77-07(A)(1) and PTI P0110755]

(2) The permittee shall not exceed an annual material throughput rate of 783,030 tons of grain received.

[OAC rule 3745-77-07(A)(1) and PTI P0110755]

d) Monitoring and/or Recordkeeping Requirements

(1) 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 baghouse stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log, as well as the date and time the daily check was performed. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. the total duration of any visible emission incident; and

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

[OAC rule 3745-77-07(C)(1) and PTI P0110755]

(2) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log, as well as the date and time the daily check was performed. If visible fugitive 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.

[OAC rule 3745-77-07(C)(1) and PTI P0110755]

(3) The permittee shall maintain monthly records of the amount (tons of grain per month and total tons of grain, to date for the calendar year) material throughput for this emissions unit.

[OAC rule 3745-77-07(C)(1) and PTI P0110755]

e) Reporting Requirements

(1) The permittee shall submit an annual summary of the total annual grain throughput, in tons, for this emissions unit. The report shall be submitted by January 31 of each year and shall cover the previous calendar year.

[OAC rule 3745-77-07(C)(1) and PTI P0110755]

(2) The permittee shall submit semiannual written reports that identify the following:

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

b. all days during which any visible fugitive particulate emissions were observed from the egress points serving this emissions unit;

c. any corrective actions taken to eliminate the visible particulate emissions from the baghouse stack; and

d. any corrective actions taken to eliminate the visible fugitive particulate emissions from the egress points serving this emissions unit.

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

[OAC rule 3745-77-07(C)(1) and PTI P0110755]

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

[OAC rule 3745-77-07(C)(1) and PTI P0110755]

f) Testing Requirements

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

a. Emission Limitations:
0.004 gr PM10/dscf of exhaust gas and 5.96 TPY PM10.

Applicable Compliance Method:
Compliance with the outlet concentration of 0.004 gr/dscf of PM10 was demonstrated through emission testing conducted on March 24-26, 2009. If required, compliance shall be demonstrated through emissions testing conducted in accordance with Methods 201/201A and 202 of 40 CFR Part 51, Appendix M and 40 CFR Part 60, Appendix A, Methods 1-4 (volumetric air flow rate). Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA, NWDO.

Compliance with the annual allowable PM10 emission limitation shall be demonstrated based on the baghouse outlet grain loading and the maximum volumetric flow rate as follows:

PM10 (tons/yr) = baghouse grain loading (0.004 gr/dscf) x 1 lb/7000 gr x maximum volumetric flow rate of the baghouse (39,700 cfm) x 60 min/hour x 8760 hours/yr x ton/2000lbs

Therefore, as long as compliance with the 0.004 gr/dscf is maintained and the volumetric air flow rate is verified through testing, compliance with the annual PM10 limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI P0110755]

b. Emission Limitation:
Fugitive PM10 shall not exceed 4.63 tons/yr.

Applicable Compliance Method:
Compliance with the annual emission limitations above may be demonstrated by the following calculations using the AP-42 emission factors (Section 9.9.1, April 2003) and the maximum grain throughput.

= 783,030 ton/yr x 0.059 lb PM10/ton x 0.0005 ton/lb x 0.2 (80% capture efficiency) = 4.03 tons PM10/year

[OAC rule 3745-77-07(C)(1) and PTI P0110755]

c. Emission Limitation:
Visible PE from the baghouse stack shall not exceed 0% opacity

Applicable Compliance Method:
If required, compliance shall be determined according to test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

[OAC rule 3745-77-07(C)(1) and PTI P0110755]

d. Emission Limitation:
Visible fugitive PE shall not exceed 5% opacity, from any truck or rail unloading.

[OAC rule 3745-77-07(C)(1) and PTI P0110755]

Applicable Compliance Method:
If required, compliance with the visible emission limitation shall be determined in accordance with Test Method 9 as set forth in “Appendix on Test Methods” in 40 CFR, Part 60 (“Standards of Performance for New Stationary Sources”).

[OAC rule 3745-77-07(C)(1) and PTI P0110755]

e. Emission Limitation:

Visible fugitive PE shall not exceed 0% opacity, from any grain handling operations.

Applicable Compliance Method:
Compliance with the visible emission limitation shall be determined in accordance with Test Method 9 as set forth in “Appendix on Test Methods” in 40 CFR, Part 60 (“Standards of Performance for New Stationary Sources”).

[OAC rule 3745-77-07(C)(1) and PTI P0110755]

g) Miscellaneous Requirements

(1) None.

11. P902, EU032, 033, 035

Operations, Property and/or Equipment Description:

DDGS loadout

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

(1) b)(1)c.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) (PTI P0110755 issued 08/23/2012)	The baghouse controlling this emissions unit shall achieve an outlet emission rate of not greater than 0.004 grain of particulate matter equal to or less than 10 microns in size (PM10) per dry standard cubic foot of exhaust gases (gr/dscf). 1.50 tons PM10/year Visible particulate emissions (PE) from the baghouse stack shall not exceed 0% opacity, as a 6-minute average. See b)(2)a. and c)(1)
b.	OAC rule 3745-31-05 (A)(3), as effective 11/30/01 (PTI P0110755 issued 08/23/2012)	1.66 tons fugitive PM10/year Visible fugitive emissions shall not exceed 5% opacity, as a 3-minute average, from the dried distiller's grains with soluble (DDGS) loadout. See b)(2)b.
c.	OAC rule 3745-31-05 (A)(3), as effective 12/1/06	See b)(2)c.
d.	OAC rule 3745-17-07 (B)	See b)(2)d.
e.	OAC rule 3745-17-08 (B)	See b)(2)e.
f.	OAC rule 3745-17-07(A)	See b)(2)f.
g.	OAC rule 3745-17-11(B)	See b)(2)f.

(2) Additional Terms and Conditions

a. This permit establishes the following federally enforceable emission limitations for the purpose of limiting the potential to emit (PTE) for PM_{10} to avoid Prevention of Significant Deterioration (PSD) and Title V applicability. The federally enforceable emission limitations are based on the operational restrictions contained in c)(1) which require control equipment and process control:

i. 0.004 gr PM10/dscf and 1.50 tpy PM10*;

ii. Visible particulate PE from the baghouse stack shall not exceed 0% opacity, as a 6-minute average.

*All stack emissions of particulate matter are PM10.

b. The following requirements contained in this permit satisfy the BAT requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001:

i. compliance with the following limitations:

(a) 1.66 tons fugitive PM10/year;

(b) Visible fugitive emissions shall not exceed 5% opacity, as a 3-minute average, from the dried distiller's grains with soluble (DDGS) loadout.

ii. compliance with the following regulations:

(a) OAC rule 3745-31-05(D)

On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, the requirements of 3745-31-05(A)(3) as effective November 30, 2001 will no longer apply.

It should be noted that the emission limitations and control requirements established pursuant to OAC rule 3745-31-05(D) will remain applicable after the above SIP revisions are approved by U.S. EPA.

c. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3)(a) do not apply to the PM10 emissions fromthis air contaminant source since the potential to emit for PM10 emissions is less than 10 tons per year.

d. This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(B), pursuant to OAC rule 3745-17-07(B)(11)(e).

e. This emissions unit is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B).

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

c) Operational Restrictions

(1) The following operational restrictions have been included in this permit for the purpose of establishing federally enforceable requirements which limit PTE [see b)(2)a.]:

a. for DDGS rail loadout, the use of partial enclosure with aspiration to a baghouse achieving a maximum outlet concentration of 0.004 gr filterable PM10/dscf; and

b. for truck loadout, the use of partial enclosure

[OAC rule 3745-77-07(A)(1) and PTI P0110755]

d) Monitoring and/or Recordkeeping Requirements

(1) 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 baghouse stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log, as well as the date and time the daily check was performed. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. the total duration of any visible emission incident; and

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

[OAC rule 3745-77-07(C)(1) and PTI P0110755]

(2) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log, as well as the date and time the daily check was performed. If visible fugitive 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.

[OAC rule 3745-77-07(C)(1) and PTI P0110755]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that identify the following:

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

b. all days during which any visible fugitive particulate emissions were observed from the egress points serving this emissions unit;

c. any corrective actions taken to eliminate the visible particulate emissions from the baghouse stack; and

d. any corrective actions taken to eliminate the visible fugitive particulate emissions from the egress points serving this emissions unit.

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

[OAC rule 3745-77-07(C)(1) and PTI P0110755]

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

[OAC rule 3745-77-07(C)(1) and PTI P0110755]

f) Testing Requirements

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

a. <u>Emission Limitations</u>:
0.004 gr PM10/dscf of exhaust gas and 1.50 TPY PM10.

<u>Applicable Compliance Method</u>:
Compliance with the outlet concentration of 0.004 gr PM10/dscf was demonstrated through emission testing conducted on March 24-26, 2009. If required, compliance shall be demonstrated through emissions testing conducted in accordance with Methods 201/201A and 202 of 40 CFR Part 51, Appendix M and 40 CFR Part 60, Appendix A, Methods 1-4 (volumetric air flow rate).

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

Compliance with the annual allowable PM10 emission limitation shall be demonstrated based on the baghouse outlet grain loading and the maximum volumetric flow rate as follows:

PM10 (tons/yr) = baghouse grain loading (0.004 gr/dscf) x 1 lb/7000 gr x maximum volumetric flow rate of the baghouse (10,000 cfm) x 60 min/hour x 8760 hours/yr x ton/2000lbs

Therefore, as long as compliance with the 0.004 gr/dscf is maintained and the volumetric air flow rate is verified through testing, compliance with the annual PM10 limitation shall be ensured.

[OAC rule 3745-77-07(C)(1) and PTI P0110755]

b. Emission Limitation:
Fugitive PM10 shall not exceed 1.66 tons/yr.

Applicable Compliance Method:
Compliance with the annual emission limitations above may be demonstrated by the following calculations using the AP-42 emission factors (Section 9.9.1, April 2003) and the maximum grain throughput.

= 229,560 tons/yr x 0.029 lb PM10/ton x 0.0005 ton/lb x 0.5 (50% capture efficiency) = 1.66 tons PM10/year

[OAC rule 3745-77-07(C)(1) and PTI P0110755]

c. Emission Limitation:
Visible PE from the baghouse stack shall not exceed 0% opacity

Applicable Compliance Method:
If required, compliance shall be determined according to test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

[OAC rule 3745-77-07(C)(1) and PTI P0110755]

d. Emission Limitation:
Visible fugitive PE shall not exceed 5% opacity, from any truck or rail unloading.

Applicable Compliance Method:
If required, compliance with the visible emission limitation shall be determined in accordance with Test Method 9 as set forth in “Appendix on Test Methods” in 40 CFR, Part 60 (“Standards of Performance for New Stationary Sources”).

[OAC rule 3745-77-07(C)(1) and PTI P0110755]

e. Emission Limitation:
Visible fugitive PE shall not exceed 0% opacity, from any grain handling operations.

Applicable Compliance Method:
Compliance with the visible emission limitation shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources").

[OAC rule 3745-77-07(C)(1) and PTI P0110755]

g) Miscellaneous Requirements

(1) None.

12. T001, T001

Operations, Property and/or Equipment Description:

250,000 gallon storage tank

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

(1) b)(1)e.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) (PTI P0107584 issued 6/29/2011)	0.34 ton volatile organic compounds (VOC)/year See b)(2)a. and c)(1)
b.	40 CFR Part 60, Subpart Kb	See b)(2)b. through b)(2)m.
c.	OAC rule 3745-21-09(L)	See b)(2)n.
d.	OAC rule 3745-31-05 (A)(3), as effective 11/30/01 (PTI P0107584 issued 6/29/2011)	See b)(2)o.
e.	OAC rule 3745-31-05 (A)(3), as effective 12/1/06 (PTI P0107584 issued 6/29/2011)	See b)(2)p.

(2) Additional Terms and Conditions

a. This permit establishes the following federally enforceable emission limitations for the purpose of limiting the potential to emit (PTE) for VOCto avoid Prevention of Significant Deterioration (PSD) and Title V applicability. The federally enforceable emission limitations are based on the operational restrictions contained in c)(1) which require control equipment and process control:

i. 0.34 ton VOC/year;

b. The fixed roof storage tank shall be equipped with an internal floating roof.

c. The automatic bleeder vents shall be closed at all times except when the roof is floated off or landed on the roof leg supports, and the rim vents, if provided, shall be set to open when the roof is being floated off the roof leg supports or is at the manufacturer's recommended setting.

d. All openings, except stub drains, shall be equipped with a cover, seal or lid which is to be in a closed position at all times except when in actual use for tank gauging or sampling.

e. The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at tall times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.

f. Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:

i. A foam- or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal). A liquid-mounted seal means a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank.

ii. Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.

iii. A mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

g. Each opening in a non-contact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.

h. Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.

i. Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

j. Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.

k. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening.

l. Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.

m. Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

n. OAC rule 3745-21-09(L) is not applicable because this tank does not store petroleum liquids as defined in OAC rule 3745-21-01 (E)(13).

o. The following requirements contained in this permit satisfy the BAT requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001:

i. compliance with the following regulations:

(a) OAC rule 3745-31-05(D)

(b) 40 CFR Part 60, Subpart Kb

On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, the requirements of 3745-31-05(A)(3) as effective November 30, 2001 will no longer apply.

It should be noted that the emission limitations and control requirements established pursuant to OAC rule 3745-31-05(D) will remain applicable after the above SIP revisions are approved by U.S. EPA.

p. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3)(a) do not apply to the VOC emissions fromthis air contaminant source since the controlled potential to emit (PTE) is less than 10 tons per year taking into consideration federally enforceable requirements established under OAC rule 3745-31-05(D).

c) Operational Restrictions

(1) The following operational restrictions have been included in this permit for the purpose of establishing federally enforceable requirements which limit PTE [see b)(2)a.]:

a. use of an internal floating roof

b. a maximum annual throughput not to exceed 86,000,000 gallons

[OAC rule 3745-77-07(A)(1) and PTI P0107584]

(2) The maximum true vapor pressure of organic liquid stored in this storage tank shall not exceed 0.482 pound per square inch.

[OAC rule 3745-77-07(A)(1) and PTI P0107584]

d) Monitoring and/or Recordkeeping Requirements

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

a. The types of petroleum liquids stored in the tank.

b. The maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 0.482 pound per square inch absolute. Available data on the storage temperature may be used to determine the maximum true vapor pressure as in the following:

i. For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service.

ii. For refined petroleum products the vapor pressure may be obtained by the following:

(a) Available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517 (incorporated by reference--see Sec. 60.17), unless the Ohio EPA, NWDO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).

(b) (The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa or with physical properties that preclude determination by the recommended method is to be determined from available data and recorded if the estimated maximum true vapor pressure is greater than 3.5 kPa.

iii. For other liquids, the vapor pressure:

(a) May be obtained from standard reference texts, or

(b) Determined by ASTM Method D2879-83 (incorporated by reference--see Sec. 60.17); or

(c) Measured by an appropriate method approved by the Ohio EPA, NWDO; or

(d) Calculated by an appropriate method approved by the Ohio EPA, NWDO.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(2) Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(3) For vessels equipped with a liquid-mounted or mechanical shoe primary seal, the permittee shall visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Ohio EPA, NWDO in the inspection report required in e)3. Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(4) For vessels equipped with a double-seal system as specified in b)(2)f.ii.:

a. The permittee shall visually inspect the vessel as specified in d)(5) at least every 5 years; or

b. The permittee shall visually inspect the vessel as specified in d)(3).

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(5) The permittee shall visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the

slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in d)(3) and d)(4)b. and at intervals no greater than 5 years in the case of vessels specified in d)(4)a.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(6) The owner or operator shall keep copies of all reports and records required in e)(2), e)(3), and e)(4), for at least 2 years.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(7) The permittee shall keep a record of each inspection performed as required by d)(2), d)(3), d)(4), and d)(5). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(8) The owner or operator shall keep copies of all records required by d)(2) through d)(8), for at least 2 years.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(9) The owner or operator shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel (shall be kept for the life of the source).

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(10) The permittee shall maintain monthly records of the amount of material throughput for this emissions unit (gallons per month and total gallons, to date for the calendar year).

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

e) Reporting Requirements

(1) The permittee shall notify the Ohio EPA, NWDO in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by d)(2) and d)(5) to afford the Ohio EPA, NWDO the opportunity to have an observer present. If the inspection required by d)(5) is not planned and the owner or operator could not haveknown about the inspection 30 days in advance or refilling the tank, the owner or operator shall notify the Ohio EPA, NWDO at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Ohio EPA, NWDO at least 7 days prior to the refilling.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(2) If any of the conditions described in d)(3) are detected during the annual visual inspection required by d)(3), a report shall be furnished to the Ohio EPA, NWDO within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(3) After each inspection required by d)(4) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in d)(4)b., a report shall be furnished to the Ohio EPA, NWDO within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of b)(2)e. through b)(2)m. or d)(4) and list each repair made.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(4) If the permittee placed, stored, or held in this emissions unit any petroleum liquid with a true vapor pressure which was greater than 0.482 pounds per square inch absolute, the permittee shall notify the Ohio EPA, NWDO within 30 days of becoming aware of the occurrence.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

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

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(6) The permittee shall submit deviation reports that identify any exceedance of the maximum annual material throughput of 86,000,000 gallons.

The deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

f) Testing Requirements

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

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

0.34 TPY of VOC

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual allowable VOC emission limitation by rim seal loss, withdraw loss and deck fitting loss calculations as determined by U.S. EPA Tanks 4.0 program with a maximum annual material throughput of 86,000,000 gallons.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

g) Miscellaneous Requirements

(1) None.

13. T002, T002

Operations, Property and/or Equipment Description:

250,000 gallon storage tank

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

(1) b)(1)e.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) (PTI P0107584 issued 6/29/2011)	0.99 ton volatile organic compounds (VOC)/year See b)(2)a. and c)(1)
b.	40 CFR Part 60 Subpart Kb	See b)(2)b. through b)(2)m.
c.	OAC rule 3745-21-09(L)	See b)(2)n.
d.	OAC rule 3745-31-05 (A)(3), as effective 11/30/01	See b)(2)o.
e.	OAC rule 3745-31-05 (A)(3), as effective 12/1/06	See b)(2)p.

(2) Additional Terms and Conditions

a. This permit establishes the following federally enforceable emission limitations for the purpose of limiting the potential to emit (PTE) for VOCto avoid Prevention of Significant Deterioration (PSD) and Title V applicability. The federally enforceable emission limitations are based on the operational restrictions contained in c)(1) which require control equipment and process control:

i. 0.99 ton VOC/year;

b. The fixed roof storage tank shall be equipped with an internal floating roof.

c. The automatic bleeder vents shall be closed at all times except when the roof is floated off or landed on the roof leg supports, and the rim vents, if provided, shall be set to open when the roof is being floated off the roof leg supports or is at the manufacturer's recommended setting.

d. All openings, except stub drains, shall be equipped with a cover, seal or lid which is to be in a closed position at all times except when in actual use for tank gauging or sampling.

e. The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at tall times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.

f. Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:

i. A foam- or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal). A liquid-mounted seal means a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank.

ii. Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.

iii. A mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

g. Each opening in a non-contact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.

h. Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.

i. Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

j. Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.

k. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening.

l. Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.

m. Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

n. OAC rule 3745-21-09(L) is not applicable because this tank does not store petroleum liquids as defined in OAC rule 3745-21-01 (E)(13).

o. The following requirements contained in this permit satisfy the BAT requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001:

i. compliance with the following regulations:

(a) OAC rule 3745-31-05(D)

(b) 40 CFR Part 60, Subpart Kb

On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, the requirements of 3745-31-05(A)(3) as effective November 30, 2001 will no longer apply.

It should be noted that the emission limitations and control requirements established pursuant to OAC rule 3745-31-05(D) will remain applicable after the above SIP revisions are approved by U.S. EPA.

p. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3)(a) do not apply to the VOC emissions fromthis air contaminant source since the controlled potential to emit (PTE) is less than 10 tons per year taking into consideration federally enforceable requirements established under OAC rule 3745-31-05(D).

c) Operational Restrictions

(1) The following operational restrictions have been included in this permit for the purpose of establishing federally enforceable requirements which limit PTE [see b)(2)a.]:

a. use of an internal floating roof

b. a maximum annual throughput not to exceed 2,811,375 gallons

c. use of a ventless delivery system for unloading of gasoline

[OAC rule 3745-77-07(A)(1) and PTI P0107584]

(2) The maximum true vapor pressure of organic liquid stored in this storage tank shall not exceed 6.91 pound per square inch.

[OAC rule 3745-77-07(A)(1) and PTI P0107584]

d) Monitoring and/or Recordkeeping Requirements

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

a. The types of petroleum liquids stored in the tank.

b. The maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 6.91 pound per square inch absolute. Available data on the storage temperature may be used to determine the maximum true vapor pressure as in the following:

i. For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service.

ii. For refined petroleum products the vapor pressure may be obtained by the following:

(a) Available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517 (incorporated by reference--see Sec. 60.17), unless the Ohio EPA, NWDO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).

(b) (The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa or with physical properties that preclude determination by the recommended method is to be determined from available data and recorded if the estimated maximum true vapor pressure is greater than 3.5 kPa.

iii. For other liquids, the vapor pressure:

(a) May be obtained from standard reference texts, or

(b) Determined by ASTM Method D2879-83 (incorporated by reference--see Sec. 60.17); or

(c) Measured by an appropriate method approved by the Ohio EPA, NWDO; or

(d) Calculated by an appropriate method approved by the Ohio EPA, NWDO.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(2) Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(3) For vessels equipped with a liquid-mounted or mechanical shoe primary seal, the permittee shall visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Ohio EPA, NWDO in the inspection report required in D.3. Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(4) For vessels equipped with a double-seal system as specified in b)(2)f.ii.:

a. The permittee shall visually inspect the vessel as specified in d)(5) at least every 5 years; or

b. The permittee shall visually inspect the vessel as specified in d)(3).

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(5) The permittee shall visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof

has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in d)(3) and d)(4)b. and at intervals no greater than 5 years in the case of vessels specified in d)(4)a.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(6) The owner or operator shall keep copies of all reports and records required in e)(2), e)(3), and e)(4), for at least 2 years.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(7) The permittee shall keep a record of each inspection performed as required by d)(2), d)(3), d)(4), and d)(5). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(8) The owner or operator shall keep copies of all records required by d)(2) through d)(8), for at least 2 years.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(9) The owner or operator shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel (shall be kept for the life of the source).

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(10) The permittee shall maintain monthly records of the amount of (gallons per month and total gallons, to date for the calendar year) of material throughput for this emissions unit.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

e) Reporting Requirements

(1) The permittee shall notify the Ohio EPA, NWDO in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by d)(2) and d)(5) to afford the Ohio EPA, NWDO the opportunity to have an observer present. If the inspection required by d)(5) is not planned and the owner or operator could not haveknown about the inspection 30 days in advance or refilling the tank, the owner or operator shall notify the Ohio EPA, NWDO at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by

express mail so that it is received by the Ohio EPA, NWDO at least 7 days prior to the refilling.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(2) If any of the conditions described in d)(3) are detected during the annual visual inspection required by d)(3), a report shall be furnished to the Ohio EPA, NWDO within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(3) After each inspection required by d)(4) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in d)(4)b., a report shall be furnished to the Ohio EPA, NWDO within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of b)(2)e. through b)(2)m. or d)(4) and list each repair made.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(4) If the permittee placed, stored, or held in this emissions unit any petroleum liquid with a true vapor pressure which was greater than 6.91 pounds per square inch absolute, the permittee shall notify the Ohio EPA, NWDO within 30 days of becoming aware of the occurrence.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

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

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(6) The permittee shall submit deviation reports that identify any exceedance of the maximum annual material throughput of 2,811,375 gallons.

The deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

f) Testing Requirements

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

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

0.99 TPY of VOC

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual allowable VOC emission limitation by rim seal loss, withdraw loss and deck fitting loss calculations as determined by U.S. EPA Tanks 4.0 program with a maximum annual material throughput of 2,811,375 gallons.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

g) Miscellaneous Requirements

(1) None.

14. T003, T003

Operations, Property and/or Equipment Description:

2,000,000 gallon storage tank

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

(1) b)(1)e.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 375-31-05(D) (PTI P0107584 issued 6/29/2011)	0.20 ton volatile organic compounds (VOC)/year See b)(2)a. and c)(1)
b.	40 CFR Part 60, Subpart Kb	See b)(2)b. through b)(2)m
c.	OAC rule 3745-21-09(L)	See b)(2)n.
d.	OAC rule 3745-31-05 (A)(3), as effective 11/30/01	See b)(2)o.
e.	OAC rule 3745-31-05 (A)(3), as effective 12/1/06	See b)(2)p.

(2) Additional Terms and Conditions

a. This permit establishes the following federally enforceable emission limitations for the purpose of limiting the potential to emit (PTE) for VOCto avoid Prevention of Significant Deterioration (PSD) and Title V applicability. The federally enforceable emission limitations are based on the operational restrictions contained in c)(1) which require control equipment and process control:

i. 0.20 ton VOC/year;

b. The fixed roof storage tank shall be equipped with an internal floating roof.

c. The automatic bleeder vents shall be closed at all times except when the roof is floated off or landed on the roof leg supports, and the rim vents, if provided, shall be set to open when the roof is being floated off the roof leg supports or is at the manufacturer's recommended setting.

d. All openings, except stub drains, shall be equipped with a cover, seal or lid which is to be in a closed position at all times except when in actual use for tank gauging or sampling.

e. The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at tall times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.

f. Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:

i. A foam- or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal). A liquid-mounted seal means a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank.

ii. Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.

iii. A mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

g. Each opening in a non-contact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.

h. Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.

i. Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

j. Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.

k. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening.

l. Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.

m. Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

n. OAC rule 3745-21-09(L) is not applicable because this tank does not store petroleum liquids as defined in OAC rule 3745-21-01 (E)(13).

o. The following requirements contained in this permit satisfy the BAT requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001:

i. compliance with the following regulations:

(a) OAC rule 3745-31-05(D)

(b) 40 CFR Part 60, Subpart Kb

On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, the requirements of 3745-31-05(A)(3) as effective November 30, 2001 will no longer apply.

It should be noted that the emission limitations and control requirements established pursuant to OAC rule 3745-31-05(D) will remain applicable after the above SIP revisions are approved by U.S. EPA.

p. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3)(a) do not apply to the VOC emissions fromthis air contaminant source since the controlled potential to emit (PTE) is less than 10 tons per year taking into consideration federally enforceable requirements established under OAC rule 3745-31-05(D).

c) Operational Restrictions

(1) The following operational restrictions have been included in this permit for the purpose of establishing federally enforceable requirements which limit PTE [see b)(2)a.]:

a. use of an internal floating roof

b. a maximum annual throughput not to exceed 39,561,375 gallons

[OAC rule 3745-77-07(A)(1) and PTI P0107584]

(2) The maximum true vapor pressure of organic liquid stored in this storage tank shall not exceed 0.65 pound per square inch.

[OAC rule 3745-77-07(A)(1) and PTI P0107584]

d) Monitoring and/or Recordkeeping Requirements

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

a. The types of petroleum liquids stored in the tank.

b. The maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 0.65 pound per square inch absolute. Available data on the storage temperature may be used to determine the maximum true vapor pressure as in the following:

i. For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service.

ii. For refined petroleum products the vapor pressure may be obtained by the following:

(a) Available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517 (incorporated by reference--see Sec. 60.17), unless the Ohio EPA, NWDO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).

(b) (The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa or with physical properties that preclude determination by the recommended method is to be determined from available data and recorded if the estimated maximum true vapor pressure is greater than 3.5 kPa.

iii. For other liquids, the vapor pressure:

(a) May be obtained from standard reference texts, or

(b) Determined by ASTM Method D2879-83 (incorporated by reference--see Sec. 60.17); or

(c) Measured by an appropriate method approved by the Ohio EPA, NWDO; or

(d) Calculated by an appropriate method approved by the Ohio EPA, NWDO.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(2) Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(3) For vessels equipped with a liquid-mounted or mechanical shoe primary seal, the permittee shall visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Ohio EPA, NWDO in the inspection report required in D.3. Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(4) For vessels equipped with a double-seal system as specified in b)(2)f.ii.:

a. The permittee shall visually inspect the vessel as specified in d)(5) at least every 5 years; or

b. The permittee shall visually inspect the vessel as specified in d)(3).

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(5) The permittee shall visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the

slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in d)(3) and d)(4)b. and at intervals no greater than 5 years in the case of vessels specified in d)(4)a.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(6) The owner or operator shall keep copies of all reports and records required in e)(2), e)(3), and e)(4), for at least 2 years.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(7) The permittee shall keep a record of each inspection performed as required by d)(2), d)(3), d)(4), and d)(5). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(8) The owner or operator shall keep copies of all records required by d)(2) through d)(8), for at least 2 years.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(9) The owner or operator shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel (shall be kept for the life of the source).

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(10) The permittee shall maintain monthly records of the amount of (gallons per month and total gallons, to date for the calendar year) of material throughput for this emissions unit.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

e) Reporting Requirements

(1) The permittee shall notify the Ohio EPA, NWDO in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by d)(2) and d)(5) to afford the Ohio EPA, NWDO the opportunity to have an observer present. If the inspection required by d)(5) is not planned and the owner or operator could not haveknown about the inspection 30 days in advance or refilling the tank, the owner or operator shall notify the Ohio EPA, NWDO at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Ohio EPA, NWDO at least 7 days prior to the refilling.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(2) If any of the conditions described in d)(3) are detected during the annual visual inspection required by d)(3), a report shall be furnished to the Ohio EPA, NWDO within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(3) After each inspection required by d)(4) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in d)(4)b., a report shall be furnished to the Ohio EPA, NWDO within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of b)(2)e. through b)(2)m. or d)(4) and list each repair made.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(4) If the permittee placed, stored, or held in this emissions unit any petroleum liquid with a true vapor pressure which was greater than 0.65 pounds per square inch absolute, the permittee shall notify the Ohio EPA, NWDO within 30 days of becoming aware of the occurrence.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

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

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(6) The permittee shall submit deviation reports that identify any exceedance of the maximum annual material throughput of 39,561,375 gallons.

The deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

f) Testing Requirements

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

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

0.20 TPY of VOC

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual allowable VOC emission limitation by rim seal loss, withdraw loss and deck fitting loss calculations as determined by U.S. EPA Tanks 4.0 program with a maximum annual material throughput of 39,561,375 gallons.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

g) Miscellaneous Requirements

(1) None.

15. T004, T004

Operations, Property and/or Equipment Description:

2,000,000 gallon storage tank

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

(1) b)(1)e.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) (PTI P0107584 issued 6/29/2011)	0.20 ton VOC/year See b)(2)a. and c)(1)
b.	40 CFR Part 60, Subpart Kb	See b)(2)b. through b)(2)m.
c.	OAC rule 3745-21-09(L)	See b)(2)n.
d.	OAC rule 3745-31-05 (A)(3), as effective 11/30/01	See b)(2)o.
e.	OAC rule 3745-31-05 (A)(3), as effective 12/1/06	See b)(2)p.

(2) Additional Terms and Conditions

a. This permit establishes the following federally enforceable emission limitations for the purpose of limiting the potential to emit (PTE) for VOCto avoid Prevention of Significant Deterioration (PSD) and Title V applicability. The federally enforceable emission limitations are based on the operational restrictions contained in c)(1) which require control equipment and process control:

i. 0.20 ton VOC/year;

b. The fixed roof storage tank shall be equipped with an internal floating roof.

c. The automatic bleeder vents shall be closed at all times except when the roof is floated off or landed on the roof leg supports, and the rim vents, if provided, shall be set to open when the roof is being floated off the roof leg supports or is at the manufacturer's recommended setting.

d. All openings, except stub drains, shall be equipped with a cover, seal or lid which is to be in a closed position at all times except when in actual use for tank gauging or sampling.

e. The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at tall times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.

f. Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:

i. A foam- or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal). A liquid-mounted seal means a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank.

ii. Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.

iii. A mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

g. Each opening in a non-contact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.

h. Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.

i. Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

j. Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.

k. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening.

l. Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.

m. Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

n. OAC rule 3745-21-09(L) is not applicable because this tank does not store petroleum liquids as defined in OAC rule 3745-21-01 (E)(13).

o. The following requirements contained in this permit satisfy the BAT requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001:

i. compliance with the following regulations:

(a) OAC rule 3745-31-05(D)

(b) 40 CFR Part 60, Subpart Kb

On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, the requirements of 3745-31-05(A)(3) as effective November 30, 2001 will no longer apply.

It should be noted that the emission limitations and control requirements established pursuant to OAC rule 3745-31-05(D) will remain applicable after the above SIP revisions are approved by U.S. EPA.

p. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3)(a) do not apply to the VOC emissions fromthis air contaminant source since the controlled potential to emit (PTE) is less than 10 tons per year taking into consideration federally enforceable requirements established under OAC rule 3745-31-05(D).

c) Operational Restrictions

(1) The following operational restrictions have been included in this permit for the purpose of establishing federally enforceable requirements which limit PTE [see b)(2)a.]:

a. use of an internal floating roof

b. a maximum annual throughput not to exceed 39,561,375 gallons

[OAC rule 3745-77-07(A)(1) and PTI P0107584]

(2) The maximum true vapor pressure of organic liquid stored in this storage tank shall not exceed 0.65 pound per square inch.

[OAC rule 3745-77-07(A)(1) and PTI P0107584]

d) Monitoring and/or Recordkeeping Requirements

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

a. The types of petroleum liquids stored in the tank.

b. The maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 0.65 pound per square inch absolute. Available data on the storage temperature may be used to determine the maximum true vapor pressure as in the following:

i. For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service.

ii. For refined petroleum products the vapor pressure may be obtained by the following:

(a) Available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517 (incorporated by reference--see Sec. 60.17), unless the Ohio EPA, NWDO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).

(b) (The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa or with physical properties that preclude determination by the recommended method is to be determined from available data and recorded if the estimated maximum true vapor pressure is greater than 3.5 kPa.

iii. For other liquids, the vapor pressure:

(a) May be obtained from standard reference texts, or

(b) Determined by ASTM Method D2879-83 (incorporated by reference--see Sec. 60.17); or

(c) Measured by an appropriate method approved by the Ohio EPA, NWDO; or

(d) Calculated by an appropriate method approved by the Ohio EPA, NWDO.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(2) Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(3) For vessels equipped with a liquid-mounted or mechanical shoe primary seal, the permittee shall visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Ohio EPA, NWDO in the inspection report required in D.3. Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(4) For vessels equipped with a double-seal system as specified in b)(2)f.ii.:

a. The permittee shall visually inspect the vessel as specified in d)(5) at least every 5 years; or

b. The permittee shall visually inspect the vessel as specified in d)(3).

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(5) The permittee shall visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the

slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in d)(3) and d)(4)b. and at intervals no greater than 5 years in the case of vessels specified in d)(4)a.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(6) The owner or operator shall keep copies of all reports and records required in e)(2), e)(3), and e)(4), for at least 2 years.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(7) The permittee shall keep a record of each inspection performed as required by d)(2), d)(3), d)(4), and d)(5). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(8) The owner or operator shall keep copies of all records required by d)(2) through d)(8), for at least 2 years.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(9) The owner or operator shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel (shall be kept for the life of the source).

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(10) The permittee shall maintain monthly records of the amount of (gallons per month and total gallons, to date for the calendar year) of material throughput for this emissions unit.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

e) Reporting Requirements

(1) The permittee shall notify the Ohio EPA, NWDO in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by d)(2) and d)(5) to afford the Ohio EPA, NWDO the opportunity to have an observer present. If the inspection required by d)(5) is not planned and the owner or operator could not haveknown about the inspection 30 days in advance or refilling the tank, the owner or operator shall notify the Ohio EPA, NWDO at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Ohio EPA, NWDO at least 7 days prior to the refilling.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(2) If any of the conditions described in d)(3) are detected during the annual visual inspection required by d)(3), a report shall be furnished to the Ohio EPA, NWDO within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(3) After each inspection required by d)(4) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in d)(4)b., a report shall be furnished to the Ohio EPA, NWDO within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of b)(2)e. through b)(2)m. or d)(4) and list each repair made.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(4) If the permittee placed, stored, or held in this emissions unit any petroleum liquid with a true vapor pressure which was greater than 0.65 pounds per square inch absolute, the permittee shall notify the Ohio EPA, NWDO within 30 days of becoming aware of the occurrence.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

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

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(6) The permittee shall submit deviation reports that identify any exceedance of the maximum annual material throughput of 39,561,375 gallons.

The deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

f) Testing Requirements

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

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

0.20 TPY of VOC

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual allowable VOC emission limitation by rim seal loss, withdraw loss and deck fitting loss calculations as determined by U.S. EPA Tanks 4.0 program with a maximum annual material throughput of 39,561,375 gallons.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

g) Miscellaneous Requirements

(1) None.

16. T005, T005

Operations, Property and/or Equipment Description:

126,900 gallon storage tank

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

(1) b)(1)e.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) (PTI P0107584 issued 6/29/2011)	0.97 ton volatile organic compounds (VOC)/year See b)(2)a. and c)(1)
b.	40 CFR Part 60, Subpart Kb	See b)(2)b. through b)(2)m.
c.	OAC rule 3745-21-09(L)	See b)(2)n.
d.	OAC rule 3745-31-05 (A)(3), as effective 11/30/01	See b)(2)o.
e.	OAC rule 3745-31-05 (A)(3, as effective 12/1/06	See b)(2)p.

(2) Additional Terms and Conditions

a. This permit establishes the following federally enforceable emission limitations for the purpose of limiting the potential to emit (PTE) for VOCto avoid Prevention of Significant Deterioration (PSD) and Title V applicability. The federally enforceable emission limitations are based on the operational restrictions contained in c)(1) which require control equipment and process control:

i. 0.97 ton VOC/year;

b. The fixed roof storage tank shall be equipped with an internal floating roof.

c. The automatic bleeder vents shall be closed at all times except when the roof is floated off or landed on the roof leg supports, and the rim vents, if provided, shall be set to open when the roof is being floated off the roof leg supports or is at the manufacturer's recommended setting.

d. All openings, except stub drains, shall be equipped with a cover, seal or lid which is to be in a closed position at all times except when in actual use for tank gauging or sampling.

e. The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at tall times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.

f. Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:

i. A foam- or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal). A liquid-mounted seal means a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank.

ii. Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.

iii. A mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

g. Each opening in a non-contact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.

h. Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.

i. Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

j. Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.

k. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening.

l. Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.

m. Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

n. OAC rule 3745-21-09(L) is not applicable because this tank does not store petroleum liquids as defined in OAC rule 3745-21-01 (E)(13).

o. The following requirements contained in this permit satisfy the BAT requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001:

i. compliance with the following regulations:

(a) OAC rule 3745-31-05(D)

(b) 40 CFR Part 60, Subpart Kb

On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, the requirements of 3745-31-05(A)(3) as effective November 30, 2001 will no longer apply.

It should be noted that the emission limitations and control requirements established pursuant to OAC rule 3745-31-05(D) will remain applicable after the above SIP revisions are approved by U.S. EPA.

p. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3)(a) do not apply to the VOC emissions fromthis air contaminant source since the controlled potential to emit (PTE) is less than 10 tons per year taking into consideration federally enforceable requirements established under OAC rule 3745-31-05(D).

c) Operational Restrictions

(1) The following operational restrictions have been included in this permit for the purpose of establishing federally enforceable requirements which limit PTE [see b)(2)a.]:

a. use of an internal floating roof

b. a maximum annual throughput not to exceed 2,811,375 gallons

[OAC rule 3745-77-07(A)(1) and PTI P0107584]

(2) The maximum true vapor pressure of organic liquid stored in this storage tank shall not exceed 6.91 pound per square inch.

[OAC rule 3745-77-07(A)(1) and PTI P0107584]

d) Monitoring and/or Recordkeeping Requirements

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

a. The types of petroleum liquids stored in the tank.

b. The maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 6.91 pound per square inch absolute. Available data on the storage temperature may be used to determine the maximum true vapor pressure as in the following:

i. For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service.

ii. For refined petroleum products the vapor pressure may be obtained by the following:

(a) Available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517 (incorporated by reference--see Sec. 60.17), unless the Ohio EPA, NWDO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).

(b) (The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa or with physical properties that preclude determination by the recommended method is to be determined from available data and recorded if the estimated maximum true vapor pressure is greater than 3.5 kPa.

iii. For other liquids, the vapor pressure:

(a) May be obtained from standard reference texts, or

(b) Determined by ASTM Method D2879-83 (incorporated by reference--see Sec. 60.17); or

(c) Measured by an appropriate method approved by the Ohio EPA, NWDO; or

(d) Calculated by an appropriate method approved by the Ohio EPA, NWDO.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(2) Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(3) For vessels equipped with a liquid-mounted or mechanical shoe primary seal, the permittee shall visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Ohio EPA, NWDO in the inspection report required in D.3. Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(4) For vessels equipped with a double-seal system as specified in b)(2)f.ii.:

a. The permittee shall visually inspect the vessel as specified in d)(5) at least every 5 years; or

b. The permittee shall visually inspect the vessel as specified in d)(3).

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(5) The permittee shall visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the

slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in d)(3) and d)(4)b. and at intervals no greater than 5 years in the case of vessels specified in d)(4)a.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(6) The owner or operator shall keep copies of all reports and records required in e)(2), e)(3), and e)(4), for at least 2 years.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(7) The permittee shall keep a record of each inspection performed as required by d)(2), d)(3), d)(4), and d)(5). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(8) The owner or operator shall keep copies of all records required by d)(2) through d)(8), for at least 2 years.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(9) The owner or operator shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel (shall be kept for the life of the source).

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(10) The permittee shall maintain monthly records of the amount of (gallons per month and total gallons, to date for the calendar year) of material throughput for this emissions unit.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

e) Reporting Requirements

(1) The permittee shall notify the Ohio EPA, NWDO in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by d)(2) and d)(5) to afford the Ohio EPA, NWDO the opportunity to have an observer present. If the inspection required by d)(5) is not planned and the owner or operator could not haveknown about the inspection 30 days in advance or refilling the tank, the owner or operator shall notify the Ohio EPA, NWDO at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Ohio EPA, NWDO at least 7 days prior to the refilling.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(2) If any of the conditions described in d)(3) are detected during the annual visual inspection required by d)(3), a report shall be furnished to the Ohio EPA, NWDO within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(3) After each inspection required by d)(4) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in d)(4)b., a report shall be furnished to the Ohio EPA, NWDO within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of b)(2)e. through b)(2)m. or d)(4) and list each repair made.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(4) If the permittee placed, stored, or held in this emissions unit any petroleum liquid with a true vapor pressure which was greater than 6.91 pounds per square inch absolute, the permittee shall notify the Ohio EPA, NWDO within 30 days of becoming aware of the occurrence.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

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

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(6) The permittee shall submit deviation reports that identify any exceedance of the maximum annual material throughput of 2,811,375 gallons.

The deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

f) Testing Requirements

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

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

0.97 TPY of VOC

Applicable Compliance Method:

The permittee shall demonstrate compliance with the annual allowable VOC emission limitation by rim seal loss, withdraw loss and deck fitting loss calculations as determined by U.S. EPA Tanks 4.0 program with a maximum annual material throughput of 2,811,375 gallons.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

g) Miscellaneous Requirements

(1) None.

17. Emissions Unit Group -Boilers B001, B002: B001, B002,

EU ID	Operations, Property and/or Equipment Description
B001	143 mmBtu/hr natural gas fired boiler
B002	143 mmBtu/hr natural gas fired boiler

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

(1) b)(1)d., d)(8) through d)(11) and e)(1)

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) (PTI P0107584 issued 6/29/2011)	Nitrogen oxides (NOx) emissions shall not exceed 43.84 tons per rolling, 365-day period for emissions units B001 and B002 combined. [See b)(2)a.]
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/01 (PTI P0107584 issued 6/29/2011)	1.0 lb carbon monoxide (CO)/hr and 4.38 TPY 0.27 lb particulate emissions equal to or less than 10 microns in size (PM10)/hr and 1.18 TPY 0.80 lbs volatile organic compounds (VOC)/hr and 3.50 TPY. See b)(2)b.
c.	40 CFR Part 60, Subpart Db (60.40b – 60.49b)	NOx emissions shall not exceed 0.20 pounds per million British thermal units (lbs/mmBtu), as a 30-day rolling average. [See b)(2)c. and b)(2)d.]
d.	OAC rule 3745-31-05 (A)(3), as effective 12/1/06	See b)(2)e.
e.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
f.	OAC rule 3745-17-10(B)(1)	See b)(2)f.
g.	OAC rule 3745-114-01 ORC 3704.03(F)	See d)(8) through d)(11) and e)(1)

(2) Additional Terms and Conditions

a. This permit establishes the following federally enforceable emission limitation for purposes of avoiding Prevention of Significant Deterioration (PSD) and Title V applicability:

The emissions of NOx from this emissions unit shall not exceed 43.84 tpy, based upon a rolling, 365-day period. Rolling emissions limitations have been established in permit-to-install(PTI) P0104508 issued on June 26, 2009 and, as such, rolling, NOx emission records exist. The applicant shall use the existing records to determine compliance upon startup under this permit. Therefore, it is not necessary to establish federally enforceable restrictions for the first 12 months of operation under the provisions of this permit.

b. The following requirements contained in this permit satisfy the BAT requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001:

i. use of low NOx burners

ii. the firing of only natural gas

iii. compliance with the following limitations:

(a) 1.0 lb CO/hr and 4.38 TPY

(b) 1.09 lbs PM10/hr and 4.77 TPY

(c) 0.80 lb VOC/hr and 3.50 TPY

iv. compliance with the following regulations:

(a) OAC rule 3745-17-07(A)(1)

(b) OAC rule 3745-17-10(B)(1)

(c) 40 CFR Part 60, Subpart Db

(d) OAC rule 3745-31-05(D)

On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, the requirements of 3745-31-05(A)(3) as effective November 30, 2001 will no longer apply.

*The emissions of sulfur dioxide (SO2) from this emissions unit have been determined to be negligible and are therefore not included in this permit.

c. The NOx standard shall apply at all times including periods of startup, shutdown, or malfunction.

d. Each continuous NOx monitoring system shall be certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 2. At least 45 days before commencing certification testing of the continuous NOx monitoring system(s), the permittee shall develop and maintain a written quality assurance/quality control plan designed to ensure continuous valid and representative readings of NOx emissions from the continuous monitor(s), in units of the applicable standard(s). The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous NOx monitoring system must be kept on site and available for inspection during regular office hours.

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

e. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3)(a) do not apply to the emissions of CO, PM10 and VOC fromthis air contaminant source since the uncontrolled potential to emit for CO, PM10 and VOC are each less than 10 tons per year.

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

c) Operational Restrictions

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

[OAC rule 3745-77-07(A)(1) and PTI P0107584]

d) Monitoring and/or Recordkeeping Requirements

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

a. the NOx emission rate, in lbs/day, as quantified by the CEM/PEM;

b. the rolling, 365-day summation of the NOx emissions.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(2) The permittee shall submit to the Administrator forapproval a plan that identifies the operatingconditions to be monitoredunder 40 CFR 60.48b(g)(2) and the records tobe maintained under 40 CFR 60.49b(j). Thisplan shall be submitted to the Administratorfor approval within 360 days ofthe initial startup of the affected facility.If the plan is approved, the owneror operator shall maintain records ofpredicted nitrogen oxide

emission ratesand the monitored operating conditions,including steam generating unitload, identified in the plan. The planshall:

a. Identify the specific operatingconditions to be monitored and the relationshipbetween these operatingconditions and NOxemission rates (i.e.,ng/J or lbs/MMBtu heat input). Steamgenerating unit operating conditionsinclude, but are not limited to, the degreeof staged combustion (i.e., theratio of primary air to secondary and/or tertiary air) and the level of excessair (i.e., flue gas O2 level);

b. Include the data and informationthat the owner or operator used toidentify the relationship between NOxemission rates and these operating conditions;and

c. Identify how these operating conditions,including steam generatingunit load, will be monitored under40 CFR 60.48b(g) on an hourly basis by theowner or operator during the period ofoperation of the affected facility; thequality assurance procedures or practicesthat will be employed to ensurethat the data generated by monitoringthese operating conditions will be representativeand accurate; and the typeand format of the records of these operatingconditions, including steam generatingunit load, that will be maintainedby the owner or operator under40CFR 60.49b(j).

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(3) The permittee shall maintain records of the followinginformation for each steam generatingunit operating day:

a. Calendar date;

b. The average hourly NOx emissionrates (expressed as NO2) (ng/J or lb/MMBtu heat input) measured or predicted;

c. The 30-day average NOx emissionrates (ng/J or lb/MMBtu heat input)calculated at the end of each steamgenerating unit operating day from themeasured or predicted hourly nitrogenoxide emission rates for the preceding30 steam generating unit operatingdays;

d. Identification of the steam generatingunit operating days when the calculated 30-day average NOx emission rates are in excess of the NOx emissionsstandards under § 60.44b, with thereasons for such excess emissions aswell as a description of corrective actionstaken;

e. Identification of the steam generatingunit operating days for whichpollutant data have not been obtained,including reasons for not obtaining sufficientdata and a description of correctiveactions taken;

f. Identification of the times whenemission data have been excluded fromthe calculation of average emissionrates and the reasons for excludingdata;

g. Identification of "F" factor usedfor calculations, method of determination,and type of fuel combusted;

h. Identification of the times whenthe pollutant concentration exceededfull span of the CEMS;

i. Description of any modificationsto the CEMS that could affect the abilityof the CEMS to comply with PerformanceSpecification 2 or 3; and

j. Results of daily CEMS drift testsand quarterly accuracy assessments asrequired under appendix F, Procedure 1of this part.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

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

Each continuous monitoring system consists of all the equipment used to acquire and record data in units of all applicable standard(s), and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(5) The permittee shall operate and maintain equipment to continuously monitor and record NO_x emissions from this emissions unit in units of the applicable standard(s). The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.

The permittee shall maintain records of data obtained by the continuous NO_x monitoring system including, but not limited to:

a. emissions of NO_x in parts per million on an instantaneous (one-minute) basis;

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

c. results of quarterly cylinder gas audits;

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

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

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

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

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

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

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(6) In lieu of installing a continuous emissions monitoring system (CEM) for NOx, the permittee may elect to installa predictive emission monitoring system (PEMS) for the NOx emissions. The PEMS must meet 'ExampleSpecifications and Test Procedures for Predictive Emission Monitoring Systems' as written by the UnitedStates Environmental Protection Agency, and the proposed system shall be approved in writing by Ohio EPAprior to installation. At such time that a performance specification for PEMS is promulgated, the PEMS shallbe required to meet the promulgated requirements.

After initial testing to assure the PEMS meets the 'Example Specifications and Test Procedures for PredictiveEmission Monitoring Systems', or when available, the promulgated performance specification, ongoing qualityassurance/quality control shall include a relative accuracy test audit (RATA) once every four (or less) calendarquarters. RATA requirements are in addition to any and all PEMS manufacturer-suggested qualityassurance/quality control procedures. RATA requirements shall include multi-load, multi-fuel (whenapplicable) testing. RATA testing shall be completed using the appropriate 40 CFR 60, Appendix A testmethods (Methods 7E, 3A and 1-4 as necessary). RATA testing protocol shall be submitted to the Director (theOhio EPA, Central Office) for approval prior to installation of the PEMS.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

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

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(8) The federally enforceable permit-to-install (FEPTI)application for these emissions unit(s), B001, B002, J001, P007, P008, P009, P010 and P012, was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic

compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):

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

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

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

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

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

d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or "worst case" toxic contaminant(s):

Toxic Contaminant: Acetaldehyde
TLV (mg/m3): 33.2
Maximum Hourly Emission Rate (lbs/hr): 5.75 (permit total)
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 108.8
MAGLC (ug/m3): 790

Toxic Contaminant: Hexane
TLV (mg/m3): 176.23
Maximum Hourly Emission Rate (lbs/hr): 0.70 (permit total)
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2.77
MAGLC (ug/m3): 4,196

Toxic Contaminant: Formaldehyde
TLV (mg/m3): 368
Maximum Hourly Emission Rate (lbs/hr): 0.52 (permit total)
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1.48
MAGLC (ug/m3): 6.47

The permittee, has demonstrated that emissions of acetaldehyde, hexane and formaldehyde, from emissions unit(s) B001, B002, J001, P007, P008, P009, P010 and

P012, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

[PTI P0107584]

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

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

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

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

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

[PTI P0107584]

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

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

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

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

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

[PTI P0107584]

(11) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

[PTI P0107584]

e) Reporting Requirements

(1) The permittee shall submit annual reports that include any changes to any parameter or value used in the dispersion model used to demonstrate compliance with the "Toxic Air Contaminate Statute", ORC 3704.03(F), through the predicted 1 hour maximum concentration. The report should include:

a. the original model input;

b. the updated model input;

c. the reason for the change(s) to the input parameter(s); and

d. a summary of the results of the updated modeling, including the input changes; and

e. a statement that the model results indicate that the 1-hour maximum ground-level concentration is less than 80% of the MAGLC.

If no changes to the emissions, emissions unit(s), or the exhaust stack have been made during the reporting period, then the report shall include a statement to that effect. The report shall be submitted by January 31 and shall cover the previous calendar year.

[OAC rule 3745-77-07(C)(1), ORC 3704.03(F)(3)(c) and F(4), OAC rule 3745-114-01]

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

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

i. all exceedances of the rolling, 365 day emission limitation for NOx

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

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

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

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

The quarterly reports shall be submitted,electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the appropriate District Office or local air agency).

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(3) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous NO_x monitoring system:

a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency, documenting all instances of NO_x emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, OAC Chapters 3745-14 and 3745-23, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s).

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

i. the facility name and address;

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

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

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

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

v. the total NO_x emissions for the calendar quarter (tons);

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

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

viii. results and dates of quarterly cylinder gas audits;

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

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

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

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

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

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

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

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

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(4) The owner or operator of each affected facility subject to the NOx standard of 40 CFR 60.44b who seeks to demonstrate compliance with those standards through the monitoring of steam generating unit operating conditions under the provisions of 40 CFR 60.48b(g)(2) shall submit to the Administrator for approval a plan that identifies the operating conditions to be monitored under 40 CFR 60.48b(g)(2) and the records to be maintained under 40 CFR 60.49b(j). This plan shall be submitted to the Administrator for approval within 360 days of the initial startup of the affected facility. If the plan is

approved, the owner or operator shall maintain records of predicted nitrogen oxide emission rates and the monitored operating conditions, including steam generating unit load, identified in the plan.The plan shall:

a. Identify the specific operating conditions to be monitored and the relationship between these operating conditions and NOx emission rates (i.e., ng/J or lbs/MMBtu heat input). Steam generating unit operating conditions include, but are not limited to, the degree of staged combustion (i.e., the ratio of primary air to secondary and/ or tertiary air) and the level of excess air (i.e., flue gas O2 level);

b. Include the data and information that the owner or operator used to identify the relationship between NOx emission rates and these operating conditions; and

c. Identify how these operating conditions, including steam generating unit load, will be monitored under 40 CFR 60.48b(g) on an hourly basis by the owner or operator during the period of operation of the affected facility; the quality assurance procedures or practices that will be employed to ensure that the data generated by monitoring these operating conditions will be representative and accurate; and the type and format of the records of these operating conditions, including steam generating unit load, that will be maintained by the owner or operator under 40 CFR 60.49b(j).

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

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

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(6) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #P0107584, issued on 6/29/2011: **[e)(1)]**. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

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

(7) 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.

f) Testing Requirements

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

a. Emissions Limitations:
0.20 lb NOx/mmBtu, as a 30-day rolling average and 43.84 tons per year, based upon a rolling 365-day period.

Applicable Compliance Method:
Ongoing compliance with the NOx emission limitations contained in this permit shall be demonstrated through the data collected as required in the Monitoring and Recordkeeping section of this permit; and through demonstration of compliance with the quality assurance/quality control plan, which shall meet the requirements of 40 CFR Part 60. If required, compliance shall be demonstrated through emission testing conducted in accordance with Methods 1-4 and 7 of 40 CFR Part 60, Appendix A.

Compliance with the annual limitation shall be based upon record keeping requirement in d)(1).

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

b. Emissions Limitations:
1.0 lb carbon monoxide (CO)/hr and 4.38 TPY

Applicable Compliance Method:
The hourly allowable CO emission limitation was developed based off a March 24-25, 2009 compliant stack test. If required, compliance shall be demonstrated through emission testing conducted in accordance with Methods 1 - 4 and 10 of 40 CFR Part 60, Appendix A.

The annual emission limitation was developed by multiplying the hourly emission limitation by the maximum operating schedule of 8760 hours/year, and then by 0.0005 ton/lb. Therefore, if compliance is shown with the hourly limitation, compliance with the annual limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

c. Emissions Limitations:
0.27 lb PM10/hr; 1.18 TPY PM10

Applicable Compliance Method:
The hourly allowable PM10 emission limitation was developed by multiplying the emission factor of 1.9 lbs of PM10/mm scf (USEPA, AP-42 emission factor, Table 1.4-2, revised 7/98) by the maximum hourly heat input rate of 143 mmBtu/hr, and then dividing by the heating value of 1000 mmBtu/mm scf.

If required, compliance with the PM10 limitation shall be determined in accordance with the test methods and procedures specified in 40 CFR Part 51, Appendix M, Methods 201/201 A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office (NWDO).

The annual emission limitation was developed by multiplying the hourly emission limitation by the maximum operating schedule of 8760 hours/year, and then by 0.0005 ton/lb. Therefore, if compliance is shown with the hourly limitation, compliance with the annual limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

d. Emissions Limitation
0.80 lb VOC/hr; 3.50 TPY VOC

Applicable Compliance Method:
The hourly VOC emission limitation was developed by multiplying the emission factor of 5.5 lbs of VOC per million standard cubic feet (mm scf) [USEPA AP-42 Table 1.4-2, revised 7/98] by the maximum hourly heat input rate of 143 mmBtu/hr, and then dividing by the heating value of 1000 mmBtu/mm scf.

If required, compliance with the hourly VOC limitation shall be determined in accordance with the test methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1-4 and 18, 25 or 25A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office (NWDO).

The annual emission limitation was developed by multiplying the hourly emission limitation by the maximum operating schedule of 8760 hours/year, and then by 0.0005 ton/lb. Therefore, if compliance is shown with the hourly limitation, compliance with the annual limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

e. Emissions Limitation:
Visible PE from the stack serving this emissions unit shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method:
If required, compliance shall be demonstrated in accordance with OAC rule 3745-17-03(B)(1).

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

g) Miscellaneous Requirements

(1) None.

18. Emissions Unit Group -Dryers: P008,P009,

EU ID	Operations, Property and/or Equipment Description
P008	DDGS dryer no. 1
P009	DDGS dryer no. 2

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

(1) b)(1)f., d)(4) through d)(7) and e)(2)

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) (PTI P0110755 issued 08/23/2012)	Carbon monoxide (CO) emissions from P007, P008, P009 and P010 combined, shall not exceed 12.02 lbs/hr and 52.66 tons per year (TPY) [see b)(2)a and c)(1)]. Particulate matter equal to or less than 10 microns in size (PM10), from emissions units P007, P008, P009 and P010 combined, shall not exceed 10.0 lbs/hr and 43.8 TPY [see b)(2)a., b)(2)b. and C)(1)] Volatile organic compound (VOC) emissions from P007, P008, P009 and P010 combined, shall not exceed 9.0 lbs/hr and 46.12 TPY. [see b)(2)a and c)(1)] Visible particulate emissions (PE) from the stack(s) serving this emissions unit shall not exceed 5% opacity, as a six-minute average during normal and RTO downtime operations.
b.	ORC rule 3704.03(T)	Nitrogen oxides (NOx) emissions from emissions units P007, P008, P009 and P010combined shall not exceed 11.0 pounds per hour (lbs/hr).

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		See b)(2)c.
c.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	See b)(2)d.
d.	OAC rule 3745-17-07(A)	See b)(2)e.
e.	OAC rule 3745-17-11(B)	See b)(2)e.
f.	OAC rule 3745-114-01 ORC 3704.03(F)	See d)(4) through d)(7) and e)(2)

(2) Additional Terms and Conditions

a. This permit establishes the following federally enforceable emission limitations for the purpose of limiting the potential to emit (PTE) for CO, $PM_{10}$and VOC to avoid Prevention of Significant Deterioration (PSD) and Title V applicability. The federally enforceable emission limitations are based on the operational restrictions contained in c)(1) which require control equipment and process control:

i. 12.02 lbs/hr and 52.66 tpy CO (for P007, P008, P009 and P010 combined);

ii. 10.0 lbs/hr PM10 and 43.8 tpy PM10(for P007, P008, P009 and P010 combined);

iii. visible PE shall not exceed 5% opacity, as a six-minute average (during normal operations and downtime of the RTO);

iv. 9.0 lbs/hr and 46.12 tpy VOC (for P007, P008, P009 and P010 combined).

b. All emissions of particulate matter are PM10.

c. The Best Available Technology (BAT) requirements under ORC 3704.03(T) have been determined to be a NOx emission limitation not to exceed 11.0 lbs/hr (for P007, P008, P009 and P010 combined) and compliance with lb/hr emission limitations established under OAC rule 3745-31-05(D).

The emission rates above represent the potential to emit (defined as the maximum capacity to emit an air pollutant under the physical and operational design). Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure compliance with these emission limitations.

d. The emissions of sulfur dioxide (SO2) from this emissions unit have been determined to be negligible and therefore emission limitations under OAC rule 3745-31-05(A)(3), as effective 11-30-01, have not been established in this permit.

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

c) Operational Restrictions

(1) The following operational restrictions have been included in this permit for the purpose of establishing federally enforceable requirements which limit PTE [see b)(2)a.]:

a. the use of a regenerative thermal oxidizer (RTO) following a wet scrubber meeting a minimum control efficiency of 90% for CO and particulate matter* and 98% for VOC emissions; and

b. firing only natural gas in the RTO.

*The control of particulate matter includes a multiclone/cyclone for removal of particulate matter (as dried product) prior to entering the RTO. The control system shall result in a PM10 emission rate not to exceed 10.0 lbs/hr (for P007, P008, P009 and P010 combined) from the RTO.

[OAC rule 3745-77-07(A)(1) and PTI P0110755]

(2) The permittee shall burn only natural gas in this emissions unit.

[OAC rule 3745-77-07(A)(1) and PTI P0110755]

(3) The permittee shall shut down this emissions unit when the RTO experiences an unscheduled shutdown.

[OAC rule 3745-77-07(A)(1) and PTI P0110755]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall properly install, operate, and maintain equipment to continuously monitor and record the combustion temperature within the thermal oxidizer during operation of this emissions unit. 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 record the combustion temperature within the thermal oxidizer on a continuous basis.

Whenever the monitored value for the combustion temperature deviates from the value specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date(s) the investigation was conducted;

d. the names of the personnel who conducted the investigation; and,

e. the findings and recommendations.

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

f. a description of the corrective action;

g. the date it was completed;

h. the date and time the deviation ended;

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

j. the combustion temperature within the thermal oxidizer immediately after the corrective action; and,

k. the names of the personnel who performed the work.

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

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

The temperature limit is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted temperature limit based upon information obtained during future performance tests that demonstrate compliance with the allowable emission rate(s) for the controlled pollutant(s). In addition, approved revisions to the temperature limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

[OAC rule 3745-77-07(C)(1) and PTI P0110755]

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

[OAC rule 3745-77-07(C)(1) and PTI P0110755]

(3) The permittee shall maintain a record of all instances when this emissions unit was in operation when the RTO was shutdown.

[OAC rule 3745-77-07(C)(1) and PTI P0110755]

(4) The federally enforceable permit-to-install (FEPTI)application for these emissions unit(s), B001, B002, J001, P007, P008, P009, P010 and P012, was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

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

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

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

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

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

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

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

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

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or "worst case" toxic contaminant(s):

Toxic Contaminant: Acetaldehyde
TLV (mg/m3): 33.2
Maximum Hourly Emission Rate (lbs/hr): 5.75 (permit total)
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 108.8
MAGLC (ug/m3): 790

Toxic Contaminant: Hexane
TLV (mg/m3): 176.23
Maximum Hourly Emission Rate (lbs/hr): 0.70 (permit total)
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2.77
MAGLC (ug/m3): 4,196

Toxic Contaminant: Formaldehyde
TLV (mg/m3): 368
Maximum Hourly Emission Rate (lbs/hr): 0.52 (permit total)
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1.48
MAGLC (ug/m3): 6.47

The permittee, has demonstrated that emissions of acetaldehyde, hexane and formaldehyde, from emissions unit(s) B001, B002, J001, P007, P008, P009, P010 and P012, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

[PTI P0110755]

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

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

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

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

If the permittee determines that the "Toxic Air Contaminant Statute" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC

3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final FEPTI prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

[PTI P0110755]

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

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

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

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

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

[PTI P0110755]

(7) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

[PTI P0110755]

e) Reporting Requirements

(1) The permittee shall submit annual reports that include any changes to any parameter or value used in the dispersion model used to demonstrate compliance with the "Toxic Air Contaminate Statute", ORC 3704.03(F), through the predicted 1 hour maximum concentration. The report should include:

a. the original model input;

b. the updated model input;

c. the reason for the change(s) to the input parameter(s); and

d. a summary of the results of the updated modeling, including the input changes; and

e. a statement that the model results indicate that the 1-hour maximum ground-level concentration is less than 80% of the MAGLC.

If no changes to the emissions, emissions unit(s), or the exhaust stack have been made during the reporting period, then the report shall include a statement to that effect.

The report shall be submitted by January 31 of each year and shall cover the previous calendar year.

[PTI P0110755, ORC 3704.03(F)(3)(c) and (F)(4) and OAC rule 3745-114-01]

(2) The permittee shall submit deviation reports that identify all instances when emissions units P008 and/or P009 were in operation [see b)(2)d. and c)(3)] when the RTO was shut down. These reports shall be submitted within 30 days after the deviation occurs.

[OAC rule 3745-77-07(C)(1) and PTI P0110755]

(3) The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment (thermal incinerator) during the operation of this emissions unit:

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

b. an identification of each incident of deviation described in (a) where a prompt investigation was not conducted;

c. an identification of each incident of deviation described in (a) where prompt corrective action, that would bring the combustion temperature into compliance with the acceptable range, was determined to be necessary and was not taken; and

d. an identification of each incident of deviation described in (a) where proper records were not maintained for the investigation and/or the corrective action.

The reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

[OAC rule 3745-77-07(C)(1) and PTI P0110755]

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

[OAC rule 3745-77-07(C)(1) and PTI P0107584]

(5) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #P0110755, issued on 08/23/2012: **[e)(1)]**. The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

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

f) Testing Requirements

(1) 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 of permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the CO, VOC, and PM10 mass emission limitations from the regenerative thermal oxidizer controlling this emissions unit. Emission testing shall also be conducted to demonstrate compliance with the control efficiency limitation for VOCs from the scrubber controlling this emissions unit, and for the control efficiency limitation for VOCs from the regenerative thermal oxidizer controlling this emissions unit.

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

i. for PM10, Methods 201/201A and 202 of 40 CFR Part 51, Appendix M;

ii. for CO, Methods 1-4 and 10 of 40 CFR Part 60, Appendix A; and

iii. for total VOC, Methods 1-4 and 18, 25 or 25A of 40 CFR Part 60, Appendix A. Appropriate methods shall be used in conjunction with the test methods and procedures specified in Methods 18, 25, or 25A of 40 CFR Part 60, Appendix A for determining total VOC mass emissions.

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA, NWDO. The test method(s) which must be employed to demonstrate compliance with the control efficiencies are specified below.

d. The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in Methods 18, 25, or 25A of 40 CFR Part 60, Appendix A for VOC emissions .

e. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases."

f. The test(s) shall be conducted while emissions units P007, P008, P009 and P010 are operating at their maximum capacities, unless otherwise specified or approved by the Ohio EPA, NWDO.

g. During emission testing, the permittee shall also record the following information:

i. the pressure drop across the scrubber, in inches of water;

ii. the scrubber water flow rate, in gallons/minute; and

iii. the average combustion temperature within the thermal incinerator, in degrees Fahrenheit.

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

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

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

Future testing requirements shall be conducted in accordance with applicable rules, policies, etc. (i.e. Engineering Guide #16, OAC rule 3745-15-04, etc.) Testing time frames may be amended or waived for cause upon prior request of and written approval of, the Ohio EPA Northwest District Office.

(2) Compliance with the emission limitations and/or control requirements specified in b)(1)of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitations:
9.0 lbs VOC/hr, 46.12 tpy VOC (for emissions units P007, P008, P009 and P010 combined)

11.0 lbs NOx/hr (for emissions units P007, P008, P009 and P010 combined)

12.02 lbs CO/hr, 52.66 tpy CO (for emissions units P007, P008, P009 and P010 combined)

10.0 lbs PM10/hr, 43.8 tpy PM10 (for emissions units P007, P008, P009 and P010 combined)

Applicable Compliance Method:
Compliance with the hourly allowable emission limitations above were demonstrated by emission testing conducted on 11/29/2011 in accordance with the following:

i. for PM10, Methods 201/201A and 202 of 40 CFR Part 51, Appendix M;

ii. for NOx, Methods 1-4 and 7 of 40 CFR Part 60, Appendix A;

iii. for CO, Methods 1-4 and 10 of 40 CFR Part 60, Appendix A; and

iv. for total VOC, Methods 1-4 and 18, 25 or 25A of 40 CFR Part 60, Appendix A.

Additional testing requirements shall be conducted in accordance with applicable rules, policies, etc. (i.e. Engineering Guide #16, OAC rule 3745-15-04, etc.)

The annual emission limitations were developed by multiplying the respective hourly emission limitations by the maximum operating schedule of 8760 hours/year, and then dividing by 2000 lbs/ton. Therefore, if compliance is shown with the hourly limitations, compliance with the annual limitations shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI P0110755]

b. Emission Limitation:
Visible PE from the RTO stack shall not exceed 5% opacity, as a six-minute average (during normal operations and RTO downtime).

Appliance Compliance Method:
If required, compliance shall be determined according to test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

[OAC rule 3745-77-07(C)(1) and PTI P0110755]

c. Emission Limitation:
The regenerative thermal oxidizer shall meet a minimum control efficiency of 98% for VOC emissions, and a minimum control efficiency of 90% for CO and PM10*.

*The control of particulate matter includes a multiclone/cyclone for removal of particulate matter (as dried product) prior to entering the RTO. The control system shall result in a PM10 emission rate not to exceed 10.0 lbs/hr from the RTO.

Applicable Compliance Method:
Compliance with the VOC control efficiency requirements were demonstrated by emission testing conducted on 11/29/2011 in accordance with the following methods:

i. the control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in Methods 18, 25, or 25A of 40 CFR Part 60, Appendix A for VOC emissions.

Compliance with the CO destruction efficiency shall be assumed as long as compliance with the hourly CO mass emission limitation is maintained. [Due to the creation of CO in the RTO, it is not possible to perform testing to demonstrate compliance directly associated with the destruction of CO entering the RTO.]

[OAC rule 3745-77-07(C)(1) and PTI P0110755]

g) Miscellaneous Requirements

(1) None.

19. Emissions Unit Group -Hammermills P002-P006: P002, P003, P004, P005, P006,

EU ID	Operations, Property and/or Equipment Description
P002	hammermill no. 1
P003	hammermill no. 2
P004	hammermill no. 4
P005	hammermill no. 4
P006	hammermill no. 5

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

(1) b)(1)c.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) (PTI P0110755 issued 08/23/2012)	Particulate matter equal to or less than 10 microns in size (PM10) from emissions units P002, P003, P004, P005 and P006 combined, shall not exceed 0.003 grain per dry standard cubic foot (gr/dscf) 6.76 tons PM10/year Visible particulate emissions (PE) from the baghouse stack shall not exceed 0% opacity, as a six-minute average. See b)(2)a. and c)(1)
b.	OAC rule 3745-31-05 (A)(3), as effective 11/30/01	See b)(2)b.
c.	OAC rule 3745-31-05 (A)(3), as effective 12/1/06	See b)(2)c.
d.	OAC rule 3745-17-07(A)	See b)(2)d.
e.	OAC rule 3745-17-11(B)	See b)(2)d.

(2) Additional Terms and Conditions

a. This permit establishes the following federally enforceable emission limitations for the purpose of limiting the potential to emit (PTE) for PM_{10} to avoid Title V applicability. The federally enforceable emission limitations are based on the operational restrictions contained in c)(1) which require control equipment and process control:

i. 0.003 gr PM10/dscf and 6.76 tpy PM10*;

ii. Visible particulate PE from the baghouse stack shall not exceed 0% opacity, as a 6-minute average.

*All stack emissions of particulate matter are PM10.

b. The requirements of this rule are equivalent to the requirements established pursuant to OAC rule 3745-31-05(D); therefore, the permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC rule 3745-31-05(A)(3), as effective November 30, 2001, in this permit.

On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 Changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, the requirements of 3745-31-05(A)(3) as effective on November 30, 2001 will no longer apply.

It should be noted that the emission limitations and control requirements established pursuant to OAC rule 3745-31-05(D) will remain applicable after the above SIP revisions are approved by U.S. EPA.

c. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3)(a), as effective December 1, 2006, do not apply to the PM10 emissions from this air contaminant source since the controlled potential to emit (PTE) is less than 10 tons per year taking into consideration federally enforceable requirements established under OAC rule 3745-31-05(D).

d. The emission limitation established by this rule is less stringent than the emissions limitation established pursuant to OAC rule 3745-31-05(D).

c) Operational Restrictions

(1) The following operational restrictions have been included in this permit for the purpose of establishing federally enforceable requirements which limit PTE [see b)(2)a.]:

a. use of a baghouse control system achieving a maximum outlet concentration of 0.003 gr PM10/dscf.

[OAC rule 3745-77-07(A)(1) and PTI P0110755]

d) Monitoring and/or Recordkeeping Requirements

(1) 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 baghouse stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log, as well as the date and time the daily check was performed. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. the total duration of any visible emission incident; and

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

[OAC rule 3745-77-07(C)(1) and PTI P0110755]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports thatidentify the following:

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

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

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

[OAC rule 3745-77-07(C)(1) and PTI P0110755]

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

[OAC rule 3745-77-07(C)(1) and PTI P0110755]

f) Testing Requirements

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

a. <u>Emission Limitations</u>:
0.003 gr PM10/dscf of exhaust gas and 6.76 TPY PM10.

Applicable Compliance Method:
Compliance with the outlet concentration of 0.003 gr PM10/dscf was demonstrated through emission testing conducted on March 24-26, 2009. If required, compliance shall be demonstrated through emissions testing conducted in accordance with Methods 201/201A and 202 of 40 CFR Part 51, Appendix M and 40 CFR Part 60, Appendix A, Methods 1-4 (volumetric air flow rate). Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA, NWDO.

Compliance with the annual allowable PM10 emission limitation shall be demonstrated based on the baghouse outlet grain loading and the maximum volumetric flow rate as follows:

PM10 (tons/yr) = baghouse grain loading (0.003 gr/dscf) x 1 lb/7000 gr x maximum volumetric flow rate of the baghouse (60,000 cfm) x 60 min/hour x 8760 hours/yr x ton/2000lbs

Therefore, as long as compliance with the 0.003 gr/dscf is maintained and the volumetric air flow rate is verified through testing, compliance with the annual PM10 limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI P0110755]

b. Emission Limitation:
Visible PE from the baghouse stack shall not exceed 0% opacity, as a six-minute average.

Applicable Compliance Method:
If required, compliance shall be determined according to test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

[OAC rule 3745-77-07(C)(1) and PTI P0110755]

g) Miscellaneous Requirements

(1) None.