Ohio Environmental Protection Agency

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

7/9/2015

Certified Mail

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

Mr. Cliff Brannon
POET Biorefining - Marion
1660 Hillman-Ford Road
Marion, OH 43302

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

Facility ID: 0351010207
Permit Number: P0119017
Permit Type: Renewal
County: Marion

Dear Permit Holder:

A draft of the Ohio Administrative Code (OAC) Chapter 3745-31 Air Pollution Permit-to-Install and Operate (PTIO)for the referenced facility has been issued for the emissions unit(s) listed in the Authorization section of the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the permit. A public notice will appear in the Ohio Environmental Protection Agency (EPA) Weekly Review and the local newspaper, The Marion Star. A copy of the public notice and the draft permit are enclosed. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page,www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab. Comments will be accepted as a marked-up copy of the draft permit or in narrative format. Any comments must be sent to the following:

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

and

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

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published in the newspaper. You will be notified if a public hearing is scheduled. A decision on issuing a final permit-to-install will be made after consideration of comments received and oral testimony if a public hearing is conducted.Any permit fee that will be due upon issuance of a final Permit-to-Install is indicated in the Authorization section. Please do not submit any payment now.If you have any questions, please contact Ohio EPA DAPC, Northwest District Office at (419)352-8461.

Sincerely,

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

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

PUBLIC NOTICE

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

Draft Air Pollution Permit-to-Install and Operate Renewal
POET Biorefining - Marion
Hillman-Ford Road,, Marion, OH 43302
ID#:P0119017
Date of Action: 7/9/2015
Permit Desc:Due to the recent USEPA decision concerning the Tailoring rule, POET Biorefining -Marion is no longer considered a major stationary source for GHGs, thus this permit action is to revert the facility back to a FEPTIO source..
The permit and complete instructions for requesting information or submitting comments may be obtained at: http://epa.ohio.gov/dapc/permitsonline.aspx by entering the ID # or: Andrea Moore, Ohio EPA DAPC, Northwest District Office, 347 North Dunbridge Road, Bowling Green, OH 43402. Ph: (419)352-8461

DRAFT

Division of Air Pollution Control
Permit-to-Install and Operate
for
POET Biorefining - Marion

Facility ID:	0351010207
Permit Number:	P0119017
Permit Type:	Renewal
Issued:	7/9/2015
Effective:	To be entered upon final issuance
Expiration:	To be entered upon final issuance

Ohio Environmental Protection Agency

Division of Air Pollution Control
Permit-to-Install and Operate
for
POET Biorefining - Marion

Table of Contents

Authorization 1
A. Standard Terms and Conditions 4
1. What does this permit-to-install and operate ("PTIO") allow me to do? 5
2. Who is responsible for complying with this permit? 5
3. What records must I keep under this permit? 5
4. What are my permit fees and when do I pay them? 5
5. When does my PTIO expire, and when do I need to submit my renewal application? 5
6. What happens to this permit if my project is delayed or I do not install or modify my source? 6
7. What reports must I submit under this permit? 6
8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit? 6
9. What are my obligations when I perform scheduled maintenance on air pollution control equipment? 6
10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report? 7
11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located? 7
12. What happens if one or more emissions units operated under this permit is/are shut down permanently? 7
13. Can I transfer this permit to a new owner or operator? 7
14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"? 8
15. What happens if a portion of this permit is determined to be invalid? 8
B. Facility-Wide Terms and Conditions 9
C. Emissions Unit Terms and Conditions 11
1. F001, EUF001 12
2. J001, EU036 16
3. P001, EU004 & EU005 24
4. P007, EU011 - EU023 28
5. P010, EU029 42
6. P011, Cooling Tower - F005 56
7. P801, Equipment Leaks-F004 59
8. P802, Wetcake Pad - F007 75
9. P901, EU001 - EU003 78

Ohio Environmental Protection Agency

10. P902, EU032, 033, 035 84
11. T001, T001 90
12. T002, T002 98
13. T003, T003 106
14. T004, T004 114
15. T005, T005 122
16. Emissions Unit Group -Dryers: P008,P009, ... 130
17. Emissions Unit Group -Hammermills: P002,P003,P004,P005,P006, ... 141

Authorization

Facility ID:	0351010207
Application Number(s):	A0052447
Permit Number:	P0119017
Permit Description:	Due to the recent USEPA decision concerning the Tailoring rule, POET Biorefining - Marion is no longer considered a major stationary source for GHGs, thus this permit action is to revert the facility back to a FEPTIO source.
Permit Type:	Renewal
Permit Fee:	$0.00*DO NOT send payment at this time, subject to change before final issuance*
Issue Date:	7/9/2015
Effective Date:	To be entered upon final issuance
Expiration Date:	To be entered upon final issuance
Permit Evaluation Report (PER) Annual Date:	To be entered upon final issuance

This document constitutes issuance to:

POET Biorefining - Marion
Hillman-Ford Road
Marion, OH 43302

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

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

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

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Craig W. Butler
Director

Authorization (continued)

Permit Number: P0119017
Permit Description: Due to the recent USEPA decision concerning the Tailoring rule, POET Biorefining - Marion is no longer considered a major stationary source for GHGs, thus this permit action is to revert the facility back to a FEPTIO source.

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

Emissions Unit ID: **F001**
Company Equipment ID: EUF001
Superseded Permit Number:
General Permit Category and Type: Not Applicable

Emissions Unit ID: **J001**
Company Equipment ID: EU036
Superseded Permit Number:
General Permit Category and Type: Not Applicable

Emissions Unit ID: **P001**
Company Equipment ID: EU004 & EU005
Superseded Permit Number:
General Permit Category and Type: Not Applicable

Emissions Unit ID: **P007**
Company Equipment ID: EU011 - EU023
Superseded Permit Number:
General Permit Category and Type: Not Applicable

Emissions Unit ID: **P010**
Company Equipment ID: EU029
Superseded Permit Number:
General Permit Category and Type: Not Applicable

Emissions Unit ID: **P011**
Company Equipment ID: Cooling Tower - F005
Superseded Permit Number: P0104476
General Permit Category and Type: Not Applicable

Emissions Unit ID: **P801**
Company Equipment ID: Equipment Leaks-F004
Superseded Permit Number: P0104476
General Permit Category and Type: Not Applicable

Emissions Unit ID: **P802**
Company Equipment ID: Wetcake Pad - F007
Superseded Permit Number:
General Permit Category and Type: Not Applicable

Emissions Unit ID: **P901**
Company Equipment ID: EU001 - EU003
Superseded Permit Number:
General Permit Category and Type: Not Applicable

Emissions Unit ID: **P902**
Company Equipment ID: EU032, 033, 035
Superseded Permit Number:

General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**T001**
Company Equipment ID:	T001
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**T002**
Company Equipment ID:	T002
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**T003**
Company Equipment ID:	T003
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**T004**
Company Equipment ID:	T004
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**T005**
Company Equipment ID:	T005
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable

Group Name: Dryers

Emissions Unit ID:	**P008**
Company Equipment ID:	EU025
Superseded Permit Number:	
General Permit Category andType:	Not Applicable
Emissions Unit ID:	**P009**
Company Equipment ID:	EU026
Superseded Permit Number:	
General Permit Category andType:	Not Applicable

Group Name: Hammermills

Emissions Unit ID:	**P002**
Company Equipment ID:	EU006
Superseded Permit Number:	
General Permit Category andType:	Not Applicable
Emissions Unit ID:	**P003**
Company Equipment ID:	EU007
Superseded Permit Number:	
General Permit Category andType:	Not Applicable
Emissions Unit ID:	**P004**
Company Equipment ID:	EU008
Superseded Permit Number:	
General Permit Category andType:	Not Applicable
Emissions Unit ID:	**P005**
Company Equipment ID:	EU009
Superseded Permit Number:	
General Permit Category andType:	Not Applicable
Emissions Unit ID:	**P006**
Company Equipment ID:	EU010
Superseded Permit Number:	
General Permit Category andType:	Not Applicable

A. Standard Terms and Conditions

1. What does this permit-to-install and operate ("PTIO") allow me to do?

This permit allows you to install and operate the emissions unit(s) identified in this PTIO. You must install and operate the unit(s) in accordance with the application you submitted and all the terms and conditions contained in this PTIO, including emission limits and those terms that ensure compliance with the emission limits (for example, operating, recordkeeping and monitoring requirements).

2. Who is responsible for complying with this permit?

The person identified on the "Authorization" page, above, is responsible for complying with this permit until the permit is revoked, terminated, or transferred. "Person" means a person, firm, corporation, association, or partnership. The words "you," "your," or "permittee" refer to the "person" identified on the "Authorization" page above.

The permit applies only to the emissions unit(s) identified in the permit. If you install or modify any other equipment that requires an air permit, you must apply for an additional PTIO(s) for these sources.

3. What records must I keep under this permit?

You must keep all records required by this permit, including monitoring data, test results, strip-chart recordings, calibration data, maintenance records, and any other record required by this permit for five years from the date the record was created. You can keep these records electronically, provided they can be made available to Ohio EPA during an inspection at the facility. Failure to make requested records available to Ohio EPA upon request is a violation of this permit requirement.

4. What are my permit fees and when do I pay them?

There are two fees associated with permitted air contaminant sources in Ohio:

- PTIO fee. This one-time fee is based on a fee schedule in accordance with Ohio Revised Code (ORC) section 3745.11, or based on a time and materials charge for permit application review and permit processing if required by the Director.

  You will be sent an invoice for this fee after you receive this PTIO and payment is due within 30 days of the invoice date. You are required to pay the fee for this PTIO even if you do not install or modify your operations as authorized by this permit.

- Annual emissions fee. Ohio EPA will assess a separate fee based on the total annual emissions from your facility. You self-report your emissions in accordance with Ohio Administrative Code (OAC) Chapter 3745-78. This fee assessed is based on a fee schedule in ORC section 3745.11 and funds Ohio EPA's permit compliance oversight activities. For facilities that are permitted as synthetic minor sources, the fee schedule is adjusted annually for inflation. Ohio EPA will notify you when it is time to report your emissions and to pay your annual emission fees.

5. When does my PTIO expire, and when do I need to submit my renewal application?

This permit expires on the date identified at the beginning of this permit document (see "Authorization" page above) and you must submit a renewal application to renew the permit. Ohio EPA will send a renewal notice to you approximately six months prior to the expiration date of this permit. However, it is

very important that you submit a complete renewal permit application (postmarked prior to expiration of this permit) even if you do not receive the renewal notice.

If a complete renewal application is submitted before the expiration date, Ohio EPA considers this a timely application for purposes of ORC section 119.06, and you are authorized to continue operating the emissions unit(s) covered by this permit beyond the expiration date of this permit until final action is taken by Ohio EPA on the renewal application.

6. What happens to this permit if my project is delayed or I do not install or modify my source?

This PTIO expires 18 months after the issue date identified on the "Authorization" page above unless otherwise specified if you have not (1) started constructing the new or modified emission sources identified in this permit, or (2) entered into a binding contract to undertake such construction. This deadline can be extended by up to 12 months, provided you apply to Ohio EPA for this extension within a reasonable time before the 18-month period has ended and you can show good cause for any such extension.

7. What reports must I submit under this permit?

An annual permit evaluation report (PER) is required in addition to any malfunction reporting required by OAC rule 3745-15-06 or other specific rule-based reporting requirement identified in this permit. Your PER due date is identified in the Authorization section of this permit.

8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit?

If you are required to obtain a Title V permit under OAC Chapter 3745-77 in the future, the permit-to-operate portion of this permit will be superseded by the issued Title V permit. From the effective date of the Title V permit forward, this PTIO will effectively become a PTI (permit-to-install) in accordance with OAC rule 3745-31-02(B). The following terms and conditions of this permit will no longer be applicable after issuance of the Title V permit: Section B, Term 1.b) and Section C, for each emissions unit, Term a)(2).

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

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

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

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

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

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

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

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

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

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

You should notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification that identifies the date on which the emissions unit was permanently shut down. The certification must be submitted by an authorized official from the facility. You cannot continue to operate an emission unit once the certification has been submitted to Ohio EPA by the authorized official.

You must comply with all recordkeeping and reporting for any permanently shut down emissions unit in accordance with the provisions of the permit, regulations or laws that were enforceable during the period of operation, such as the requirement to submit a PER, air fee emission report, or malfunction report. You must also keep all records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, for at least five years from the date the record was generated.

Again, you cannot resume operation of any emissions unit certified by the authorized official as beingpermanently shut down without first applying for and obtaining a permit pursuantto OAC Chapter 3745-31.

13. Can I transfer this permit to a new owner or operator?

You can transfer this permit to a new owner or operator. If you transfer the permit, you must follow the procedures in OAC Chapter 3745-31, including notifying Ohio EPA or the local air agency of the

change in ownership or operator. Any transferee of this permit must assume the responsibilities of the transferor permit holder.

14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?

This permit and OAC rule 3745-15-07 prohibit operation of the air contaminant source(s) regulated under this permit in a manner that causes a nuisance. Ohio EPA can require additional controls or modification of the requirements of this permit through enforcement orders or judicial enforcement action if, upon investigation, Ohio EPA determines existing operations are causing a nuisance.

15. What happens if a portion of this permit is determined to be invalid?

If a portion of this permit is determined to be invalid, the remainder of the terms and conditions remain valid and enforceable. The exception is where the enforceability of terms and conditions are dependent on the term or condition that was declared invalid.

B. Facility-Wide Terms and Conditions

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

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

      (1) None.

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

      (1) None.

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

C. Emissions Unit Terms and Conditions

1. F001, EUF001

Operations, Property and/or Equipment Description:

plant roadways and parking areas

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

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

a. None.

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

a. None.

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	0.89 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	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:

<u>Paved Roadways and Parking Areas</u>
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

(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.

(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.

e) Reporting Requirements

(1) The permittee shall identify in the annual permit evaluation report the following information during the 12-month reporting period for this/these emissions unit(s):

a. any deviations from emission limitations, operational restrictions, andcontrol device operating parameter limitations that have been detected bythe testing, monitoring, and recordkeeping requirements specified in this permit;

b. the probable cause of such deviations;

c. any corrective actions or preventive measures which have been or will betaken to remedy the deviations; and

d. the following information concerning the inspection of roadways:

i. 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

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

If no deviations occurred during the reporting period, the permittee shall identify in the permit evaluation report that no deviations occurredduring the reporting period.

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

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 Limitation</u>:
0.89 ton of fugitive particulate matter less than 10 microns in size (PM10)/year

<u>Applicable Compliance Method</u>:
The PM10 limitation was determined by multiplying an AP-42 emission factor for paved roadways of 0.026 lb of PM10/VMT [Section 13.2.1 (1/11)] by a maximum of 67,266 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.

g) Miscellaneous Requirements

(1) None.

2. J001, EU036

Operations, Property and/or Equipment Description:

ethanol loading operations

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

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

a. b)(1)e., d)(3)-d)(6) and e)(2).

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

a. None.

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(F)	4.32 tons volatile organic compounds (VOC)/yr See b)(2)a.
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	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	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 legally and practically enforceable emission limitations forVOC. The following legally and practically enforceable emission limitations are voluntary restrictions established under OAC rule 3745-31-05(F) and are based on the operational restrictions contained in c)(1) which require control equipment and process control:

i. 4.32 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) NOx/yr

(b) 3.32 tons CO/yr

ii. compliance with the following regulations:

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

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(F) 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 legally and practically 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 minimum control efficiency of 98%, by weight for VOC.

(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.

(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).

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.

(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.

(3) The 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).

(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 FEPTIO 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.

(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.

(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.

e) Reporting Requirements

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

(2) The permittee shall identify in the annual permit evaluation report the following information during the 12-month reporting period for this/these emissions unit(s):

a. any deviations from emission limitations, operational restrictions, andcontrol device operating parameter limitations that have been detected bythe testing, monitoring, and recordkeeping requirements specified in this permit;

b. the probable cause of such deviations; and

c. any corrective actions or preventive measures which have been or will betaken to remedy the deviations.

If no deviations occurred during the reporting period, the permittee shall identify in the permit evaluation report that no deviations occurredduring the reporting period.

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

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 :4.32 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 5.47lbs VOC/1000 gallons of denatured ethanol and 5.74 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 PTI 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%.

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.

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.

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

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

a. None.

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

a. None.

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

(2) Additional Terms and Conditions

a. This permit establishes thelegally and practically enforceable emission limitations for PM_{10}. The following legally and practically enforceable emission limitations are voluntary restrictions established under OAC rule 3745-31-05(F) and are based on the operational restrictions contained in c)(1) which require control equipment and process control:

i. 0.004 gr PM10/dscf and 0.45 tons PM10/year;

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

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.

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.

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

e) Reporting Requirements.

(1) The permittee shall identify in the annual permit evaluation report the following information during the 12-month reporting period for this/these emissions unit(s):

a. any deviations from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit;

b. the probable cause of such deviations;

c. any corrective actions or preventive measures which have been or will be taken to remedy the deviations; and

d. the following information concerning the monitoring of visible emissions:

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

ii. any corrective actions taken to eliminate the visible particulate emissions from the baghouse stack.

If no deviations occurred during the reporting period, the permittee shall identify in the permit evaluation report that no deviations occurred during the reporting period.

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

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 Limitation:</u>

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

<u>Applicable Compliance Method</u>:

If required, 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 and 202 of 40 CFR Part 51, Appendix M.

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

0.45 ton PM10/yr

<u>Applicable Compliance Method:</u>

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.

c. Emission Limitation:

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

Applicable Compliance Method:

If required, 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").

g) Miscellaneous Requirements

(1) None.

4. P007, EU011 - EU023

Operations, Property and/or Equipment Description:

ethanol production operations

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

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

a. b)(1)h., d)(7) –d)(10) and e)(1).

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

a. None.

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(F) (PTI P0109343 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 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 10.0lbs/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 10.53lbs/hr and 46.12 TPY. [see b)(2)a

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		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 30.76 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 38.00 lbs/hr and 1.9 TPY [See b)(2)a., b)(2)h., b)(2)i., c)(1) and e)(6). CO emissions shall not exceed 28.66 lbs/hr and 1.44 TPY 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.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
g.	OAC rule 3745-17-11(B)	See b)(2)g.
h.	OAC rule 3745-114-01 ORC 3704.03(F)	See d)(8) through d)(11) and e)(2).

(2) Additional Terms and Conditions

a. This permit establishes the following legally and practically enforceable emission limitations for CO, PM10 and VOC. The legally and practically enforceable limitations are voluntary restrictions established under OAC rule 3745-31-05(F) and 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. 10.53 lbs/hr and 46.12 tpy VOC (during normal operations) (for P007, P008, P009 and P010 combined); and

v. 30.76 lbs/hr and 7.69 tpy VOC (during downtime of the RTO)

vi. 38.00 lbs/hr and 1.9 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 500 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(F).

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(F).

h. Down time of the scrubber, while this emissions unit continues to operate, shall not exceed 100 hours per year. The permittee shall schedule and perform the activities to correspond to other shut down maintenance activities. .

c) Operational Restrictions

(1) The following operational restrictions have been included in this permit for the purpose of establishing legally and practically 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.

d. *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.

(2) The unscheduled down time of the RTO, while this emissions unit continues to operate, shall not exceed 500 hours per calendar year.

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

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

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).

a. The permittee shall record the combustion temperature within the thermal oxidizer on a continuous basis.

b. 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:

i. the date and time the deviation began and the magnitude of the deviation at that time;

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

iii. the names of the personnel who conducted the investigation; and

iv. the findings and recommendations.

c. 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.

i. The permittee shall maintain records of the following information for each deviation when it was determined that corrective action was not necessary:

(a) the reason(s) corrective action was not necessary; and

(b) the date and time the deviation ended.

ii. The permittee shall maintain records of the following information for each corrective action taken:

(a) a description of the corrective action;

(b) the date it was completed;

(c) the date and time the deviation ended;

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

(e) the combustion temperature within the thermal oxidizer immediately after the corrective action; and

(f) the names of the personnel who performed the work.

iii. 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.

d. 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 range/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 range/limit based upon information obtained during future performance tests that demonstrate compliance with the allowable emission rate(s) for the controlled pollutant(s). In addition, approved revisions to the temperature range/limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of anadministrative modification.

(2) The permittee shall properly install, operate, and maintain equipment to continuously monitor 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).

a. The permittee shall record the following reading 90 minutes after startup of an RTO bypass scenario and shall record a reading for each hour thereafter during the RTO bypass:

i. the scrubber water flow rate, in gallons per minute, based upon a one hour average.

b. Whenever the recorded value for the water flow rate deviates 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:

i. the date and time the deviation began and the magnitude of the deviation at that time;

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

iii. the names of the personnel who conducted the investigation; and

iv. the findings and recommendations.

c. 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

i. The permittee shall maintain records of the following information for each deviation when it was determined that corrective action was not necessary:

(a) the reason(s) corrective action was not necessary; and

(b) the date and time the deviation ended.

ii. The permittee shall maintain records of the following information for each corrective action taken:

(a) a description of the corrective action;

(b) the date it was completed;

(c) the date and time the deviation ended;

(d) the total period of time (in minutes) during which there was a deviation, the pressure drop and/or water flow rate reading immediately after the corrective action; and

(e) the names of the personnel who performed the work.

iii. 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.

d. <u>Scrubber water flow rate indicator range</u>

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).

e. 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 permit modification.

(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.

(4) 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).

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

(6) The 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).

(7) 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 FEPTIO 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.

(8) 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.

(9) 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.

e) Reporting Requirements

(1) The permittee shall include any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the Toxic Air

Contaminant Statute, ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration, in the annual Permit Evaluation Report (PER). If no changes to the emissions, emissions unit(s), or the exhaust stack have been made, then the report shall include a statement to this effect.

(2) The permittee shall identify in the annual permit evaluation report the following information during the 12-month reporting period for this/these emissions unit(s):

a. any deviations from emission limitations, operational restrictions, andcontrol device operating parameter limitations that have been detected bythe testing, monitoring, and recordkeeping requirements specified in this permit;

b. the probable cause of such deviations; and

c. any corrective actions or preventive measures which have been or will betaken to remedy the deviations.

If no deviations occurred during the reporting period, the permittee shall identify in the permit evaluation report that no deviations occurredduring the reporting period.

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

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 180 days of permit issuance.

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. Emission testing shall also be conducted to verify the expected emissions for single and combined HAPs.

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; based upon a one hour average 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 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:
10.53 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 based on the results of emission testing conducted on 12/08/2011 in accordance with the following:

i. for PM10, Methods 201201A 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.

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."

c. 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 control efficiency requirements above were demonstrated based on the results of emission testing conducted on 12/08/2011 in accordance with the methods outlined in Section f)(1) of this permit. 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.]

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

g) Miscellaneous Requirements

(1) None.

5. P010, EU029

Operations, Property and/or Equipment Description:

cooling and storage of DDGS

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

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

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

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

a. None.

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(F)	**<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 52.66 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 10.53

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		lbs/hr and 46.12 tpy. Visible particulate emissions (PE), from the RTO stack shall not exceed 5% opacity, as a six-minute average. *From Stack SV010 (fluid bed cooler stack):* PM10 emissions shall not exceed 0.004 grain per dry standard cubic foot (gr/dscf) and 1.50 tpy. Visible particulate emissions (PE), from stack SV010 shall not exceed 0% opacity, as a six-minute average. From Stacks SV011 and SV012 (Storage silo and Flat storage) 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)	Nitrogen oxides (NOx) emissions from emissions units P007, P008, P009 and P010, combined, shall not exceed 11.0 pounds per hour (lbs/hr). *Emissions from Stack SV010 (fluid bed cooler stack) during normal operation:* 0.16 lb VOC per ton DDGS cooled Emissions from stack SV010 during downtime of the RTO: 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.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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 thelegally and practically enforceable emission limitations for PM_{10}. The following legally and practically enforceable emission limitations are voluntary restrictions established under OAC rule 3745-31-05(F) and are based on the operational restrictions contained in c)(1) which require control equipment and process control:

<u>From Stack SV009 (RTO outlet):</u>

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

<u>From Stack SV010 (fluid bed cooler stack):</u>

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.

<u>From Stacks SV011 and SV012 (Storage silo and Flat storage)</u>

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(F).

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 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(F).

c) Operational Restrictions

(1) The following operational restrictions have been included in this permit for the purpose of establishing legally and practically 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.

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

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).

a. The permittee shall record the combustion temperature within the thermal oxidizer on a continuous basis.

b. 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:

i. the date and time the deviation began and the magnitude of the deviation at that time;

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

iii. the names of the personnel who conducted the investigation; and

iv. the findings and recommendations.

c. 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.

i. The permittee shall maintain records of the following information for each deviation when it was determined that corrective action was not necessary:

(a) the reason(s) corrective action was not necessary; and

(b) the date and time the deviation ended.

ii. The permittee shall maintain records of the following information for each corrective action taken:

(a) a description of the corrective action;

(b) the date it was completed;

(c) the date and time the deviation ended;

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

(e) the combustion temperature within the thermal oxidizer immediately after the corrective action; and

(f) the names of the personnel who performed the work.

iii. 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.

d. 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.

e. The temperature range/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 range/limit based upon information obtained during future performance tests that demonstrate compliance with the allowable emission rate(s) for the controlled pollutant(s). In addition, approved revisions to the temperature range/limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of anadministrative modification.

(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.

(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).

(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.

(5) The 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).

(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 FEPTIO 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.

(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.

(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.

e) Reporting Requirements

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

(2) The permittee shall identify in the annual permit evaluation report the following information during the 12-month reporting period for this/these emissions unit(s):

a. any deviations from emission limitations, operational restrictions, andcontrol device operating parameter limitations that have been detected bythe testing, monitoring, and recordkeeping requirements specified in this permit;

b. the probable cause of such deviations;

c. any corrective actions or preventive measures which have been or will betaken to remedy the deviations; and

d. the following information concerning the monitoring of visible emissions:

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

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

If no deviations occurred during the reporting period, the permittee shall identify in the permit evaluation report that no deviations occurredduring the reporting period.

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

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 180 days of permit issuance.

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

h. The test(s) shall be conducted while the emissions unit is operating at its maximum capacity, unless otherwise specified or approved by the Ohio EPA, NWDO.

i. 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 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:

10.53 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 based on the results of emission testing conducted on 12/08/2011 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.

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).

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:
If required, compliance with the allowable emission limitations 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.

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."

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."

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 control efficiency requirements above was demonstrated based on the results of emission testing conducted on 12/8/2011 in accordance with the methods outlined in Section f)(1) of this permit. 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.]

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

g) Miscellaneous Requirements

(1) None.

6. P011, Cooling Tower - F005

Operations, Property and/or Equipment Description:

cooling tower

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

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

a. None.

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

a. None.

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(F)	Particulate matter equal to or less than 10 microns in size (PM_{10}) shall not exceed 1.14 pounds/hour (lbs/hr) and 4.99 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)b.
b.	OAC rule 3745-17-07(A)	See b)(2)c.
c.	OAC rule 3745-17-11(B)	See b)(2)d.

(2) Additional Terms and Conditions

a. This permit establishes thelegally and practically enforceable emission limitations for PM_{10}. The following legally and practically enforceable emission limitations are voluntary restrictions established under OAC rule 3745-31-05(F) and are

based on the operational restrictions contained in c)(1) which require process control:

i. 1.63 lbs PM10/hr and 7.14 tons PM10/yr

b. All emissions of particulate matter are PM_{10}.

c. The uncontrolled mass rate of PE from this emissions unit cannot be ascertained. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(ii), Figure II of OAC rule 3745-17-11 does not apply. Also, Table 1 does not apply because the facility is located in Marion County.

d. This emissions unit is exempt from the visible emissions limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.

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.

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 monitor devices shall be installed, calibrated, operated, and maintained in accordance with the manufacturers' recommendations, instructions, and operating manuals.

(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.

e) Reporting Requirements

(1) The permittee shall identify in the annual permit evaluation report the following information during the 12-month reporting period for this/these emissions unit(s):

a. any deviations from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit;

b. the probable cause of such deviations; and

c. any corrective actions or preventive measures which have been or will be taken to remedy the deviations.

If no deviations occurred during the reporting period, the permittee shall identify in the permit evaluation report that no deviations occurred during the reporting period.

(2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted by the due date identified in the Authorization section of this

permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.

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: PM_{10} shall not exceed 1.63 lbs/hr and 7.14 TPY.

Applicable Compliance Methods: The hourly PM_{10} 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 demonstrated.

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

Applicable Compliance Method: If required, compliance with the visible emission limitation shall be demonstrated in accordance with Method 9 as set forth in “Appendix on Test Methods” in 40 CFR, Part 60.

g) Miscellaneous Requirements

(1) None..

7. P801, Equipment Leaks-F004

Operations, Property and/or Equipment Description:

fugitive VOC emissions from equipment leaks

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

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

a. None.

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

a. None.

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)	Volatile organic compound (VOC) emissions shall not exceed 8.30 tons/yr See b)(2)a.
b.	OAC rule 3745-21-09(DD)	See b)(2)b.
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. (40 CFR 60.480a-489a)	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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		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
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

(2) Additional Terms and Conditions

a. The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-09(DD), 40 CFR, Part 60, Subpart VV and 40 CFR, Part 65, Subpart F.

b. 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.

c. 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 through 60.487 for an affected facility. When choosing to comply with 40 CFR, Part 65, Subpart F, the requirements of 40 CFR 60.485(d), (e) and (f) and 40 CFR 60.486(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 VV 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.

The permittee has chosen to comply with 40 CFR, Part 65, Subpart F for the valves, pumps, relief valves and connectors at this facility.

c) Operational Restrictions

(1) When a leak is detected a weatherproof identification tag with the equipment identification number and the date detected shall be attached 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.

(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.

(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.

(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.

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) The ancillary 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.

(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 device meeting 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.

(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.

(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.

(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).

(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.

(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.

(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.

(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).

(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.

(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.

(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.

(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.

(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.

(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.

(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.

(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.

(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.

(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.

(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.

(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.

(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.

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.

(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.

(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.

(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 the permittee must notify the appropriate 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.

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

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. Emission Limitation: VOC emissions shall not exceed 8.30 tons/yr

Applicable Compliance Method: The annual VOC emission limitation was calculated by multiplying the respective emission factors and control efficiencies of all the proposed equipment subject to the LDAR program, as submitted by the permittee in PTI application #03-17303. The following is a list of the proposed pieces of equipment and the relevant type of service:

i. pump seals: 6 @ 15% VOC by weight and 7 @ 100% VOC by weight

ii. valves in light liquid service: 117 @ 15% VOC by weight and 236 @ 100% VOC by weight

iii. valves in gas service: 1 @ 15% VOC by weight and 32 @ 100% VOC by weight

iv. relief valves: 9 @ 100% VOC by weight

v. connectors: 379 @ 15% VOC by weight and 1098 @ 100% VOC by weight

Therefore, provided compliance is shown with the LDAR program, compliance with the annual VOC emission limitation shall be also be demonstrated.`

g) Miscellaneous Requirements

(1) None.

8. P802, Wetcake Pad - F007

Operations, Property and/or Equipment Description:

wetcake storage and loadout

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

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

a. None.

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

a. None.

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	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	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.

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.

e) Reporting Requirements

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

(2) The permittee shall identify in the annual permit evaluation report the following information during the 12-month reporting period for this/these emissions unit(s):

a. any deviations from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit;

b. the probable cause of such deviations; and

c. any corrective actions or preventive measures which have been or will be taken to remedy the deviations.

If no deviations occurred during the reporting period, the permittee shall identify in the permit evaluation report that no deviations occurred during the reporting period.

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 Limitation:</u>
02.19 tons VOC/yr

<u>Applicable Compliance Method</u>:
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 522,97259.7 tons/yr.

g) Miscellaneous Requirements

(1) None.

9. P901, EU001 - EU003

Operations, Property and/or Equipment Description:

grain receiving by rail and truck

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

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

a. None.

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

a. None.

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(F)	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). 5.56 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	1.64 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.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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.

a. This permit establishes the legally and practically enforceable emission limitations for PM_{10}. The following legally and practically enforceable emission limitations are voluntary restrictions established under OAC rule 3745-31-05(F) and are based on the operational restrictions contained in c)(1) which require control equipment and process control:

i. 0.004 grPM10/dscf and 5.56 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) 1.64 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(F)

(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(F) will remain applicable after the above SIP revisions are approved by U.S. EPA.

c. This rule 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 from this 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(F).

c) Operational Restrictions

(1) The following operational restrictions have been included in this permit for the purpose of establishing legally and practically 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.

(2) The permittee shall not exceed an annual material throughput rate of 783,030 tons of grain received.

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.

(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.

(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.

e) Reporting Requirements

(1) The permittee shall identify in the annual permit evaluation report the following information during the 12-month reporting period for this/these emissions unit(s):

a. any deviations from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit;

b. the probable cause of such deviations;

c. any corrective actions or preventive measures which have been or will be taken to remedy the deviations; and

d. the following information concerning the monitoring of visible emissions:

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

ii. all days during which any visible fugitive particulate emissions were observed from the egress points serving this emissions unit;

iii. any corrective actions taken to eliminate the visible particulate emissions from the baghouse stack; and

iv. any corrective actions taken to eliminate the visible fugitive particulate emissions from the egress points serving this emissions unit.

If no deviations occurred during the reporting period, the permittee shall identify in the permit evaluation report that no deviations occurred during the reporting period.

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

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 5.56 TPY PM10.

Applicable Compliance Method:
Compliance with the outlet concentration of 0.004 gr/dscf of PM10 was demonstrated through emission testing conducted on April 21-23, 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.

b. Emission Limitation:
Fugitive PM10 shall not exceed 1.64 tons/yr.

Applicable Compliance Method:
Compliance with the annual emission limitations above may be demonstrated by the following calculations using an average emission factor based on straight truck and hopper truck emission factors from AP-42 (Section 9.9.1, April 2003) and the maximum grain throughput.

= 783,030 ton/yr x 0.021 lb PM10/ton x 0.0005 ton/lb x 0.2 (80% capture efficiency) = 1.64 tons PM10/year

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."

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”).

e. Emission Limitation:
Visible fugitive PE shall not exceed 0% opacity, from any grain handling operations.

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”).

g) Miscellaneous Requirements

(1) None.

10. P902, EU032, 033, 035

Operations, Property and/or Equipment Description:

DDGS loadout

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

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

a. None.

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

a. None.

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(F)	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	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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		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 legally and practically enforceable emission limitations forPM_{10}. The following legally and practically enforceable emission limitations are voluntary restrictions established under OAC rule 3745-31-05(F) and 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(F)

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(F) will remain applicable after the above SIP revisions are approved by U.S. EPA.

c. This rule 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 from this 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(F).

c) Operational Restrictions

(1) The following operational restrictions have been included in this permit for the purpose of establishing legally and practically 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

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.

(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.

e) Reporting Requirements

(1) The permittee shall identify in the annual permit evaluation report the following information during the 12-month reporting period for this/these emissions unit(s):

a. any deviations from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit;

b. the probable cause of such deviations;

c. any corrective actions or preventive measures which have been or will be taken to remedy the deviations; and

d. the following information concerning the monitoring of visible emissions:

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

ii. all days during which any visible fugitive particulate emissions were observed from the egress points serving this emissions unit;

iii. any corrective actions taken to eliminate the visible particulate emissions from the baghouse stack; and

iv. any corrective actions taken to eliminate the visible fugitive particulate emissions from the egress points serving this emissions unit.

If no deviations occurred during the reporting period, the permittee shall identify in the permit evaluation report that no deviations occurred during the reporting period.

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

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 1.50 TPY PM10.

Applicable Compliance Method:
Compliance with the outlet concentration of 0.004 gr PM10/dscf was demonstrated through emission testing conducted on April 21-23, 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.

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

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."

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”).

e. Emission Limitation:
Visible fugitive PE shall not exceed 0% opacity, from any grain handling operations.

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”).

g) Miscellaneous Requirements

(1) None.

11. T001, T001

Operations, Property and/or Equipment Description:

250,000 gallon storage tank

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

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

a. None.

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

a. None.

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(F)	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	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 legally and practically enforceable emission limitations forVOC. The following legally and practically enforceable emission limitations are voluntary restrictions established under OAC rule 3745-31-05(F) and 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(F)

(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(F) will remain applicable after the above SIP revisions are approved by U.S. EPA.

p. This rule 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 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(F).

c) Operational Restrictions

(1) The following operational restrictions have been included in this permit for the purpose of establishing legally and practically 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

(2) The maximum true vapor pressure of organic liquid stored in this storage tank shall not exceed 0.482 pound per square inch.

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.

(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.

(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.

(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).

(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.

(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.

(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).

(8) The owner or operator shall keep copies of all records required by d)(2) through d)(8), for at least 2 years.

(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).

(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.

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 have known 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.

(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.

(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.

(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.

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

(6) The permittee shall identify in the annual permit evaluation report the following information during the 12-month reporting period for this/these emissions unit(s):

a. any deviations from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit;

b. the probable cause of such deviations; and

c. any corrective actions or preventive measures which have been or will be taken to remedy the deviations.

If no deviations occurred during the reporting period, the permittee shall identify in the permit evaluation report that no deviations occurred during the reporting period.

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 Limitation:</u>

0.34 TPY of VOC

<u>Applicable Compliance Method:</u>

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.

g) Miscellaneous Requirements

(1) None.

12. T002, T002

Operations, Property and/or Equipment Description:

250,000 gallon storage tank

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

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

a. None.

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

a. None.

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(F)	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 legally and practically enforceable emission limitations forVOC. The following legally and practically enforceable emission limitations are voluntary restrictions established under OAC rule 3745-31-05(F)

and 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(F)

(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(F) will remain applicable after the above SIP revisions are approved by U.S. EPA.

p. This rule 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 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(F).

c) Operational Restrictions

(1) The following operational restrictions have been included in this permit for the purpose of establishing legally and practically 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

(2) The maximum true vapor pressure of organic liquid stored in this storage tank shall not exceed 6.91 pound per square inch.

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.

(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.

(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.

(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).

(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.

(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.

(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).

(8) The owner or operator shall keep copies of all records required by d)(2) through d)(8), for at least 2 years.

(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).

(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.

e) Reporting Requirements

(1) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.

(2) 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 have known 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.

(3) 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.

(4) 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.

(5) 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.

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

(7) The permittee shall identify in the annual permit evaluation report the following information during the 12-month reporting period for this/these emissions unit(s):

a. any deviations from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit;

b. the probable cause of such deviations; and

c. any corrective actions or preventive measures which have been or will be taken to remedy the deviations.

If no deviations occurred during the reporting period, the permittee shall identify in the permit evaluation report that no deviations occurred during the reporting period.

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:

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.

g) Miscellaneous Requirements

(1) None.

13. T003, T003

Operations, Property and/or Equipment Description:

2,000,000 gallon storage tank

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

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

a. None.

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

a. None.

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(F)	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 legally and practically enforceable emission limitations forVOC. The following legally and practically enforceable emission limitations are voluntary restrictions established under OAC rule 3745-31-05(F) and 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(F)

(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(F) will remain applicable after the above SIP revisions are approved by U.S. EPA.

p. This rule 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 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(F).

c) Operational Restrictions

(1) The following operational restrictions have been included in this permit for the purpose of establishing legally and practically 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

(2) The maximum true vapor pressure of organic liquid stored in this storage tank shall not exceed 0.65 pound per square inch.

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.

(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.

(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.

(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).

(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.

(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.

(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)

(8) The owner or operator shall keep copies of all records required by d)(2) through d)(8), for at least 2 years.

(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).

(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.

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 have known 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.

(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.

(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.

(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.

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

(6) The permittee shall identify in the annual permit evaluation report the following information during the 12-month reporting period for this/these emissions unit(s):

a. any deviations from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit;

b. the probable cause of such deviations; and

c. any corrective actions or preventive measures which have been or will be taken to remedy the deviations.

If no deviations occurred during the reporting period, the permittee shall identify in the permit evaluation report that no deviations occurred during the reporting period.

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 Limitation:</u>

0.20 TPY of VOC

<u>Applicable Compliance Method:</u>

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.

g) Miscellaneous Requirements

(1) None.

14. T004, T004

Operations, Property and/or Equipment Description:

2,000,000 gallon storage tank

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

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

a. None.

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

a. None.

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(F)	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 legally and practically enforceable emission limitations forVOC. The following legally and practically enforceable emission limitations are voluntary restrictions established under OAC rule 3745-31-05(F) and 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(F)

(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(F) will remain applicable after the above SIP revisions are approved by U.S. EPA.

p. This rule 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 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(F).

c) Operational Restrictions

(1) The following operational restrictions have been included in this permit for the purpose of establishing legally and practically 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

(2) The maximum true vapor pressure of organic liquid stored in this storage tank shall not exceed 0.65 pound per square inch.

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.

(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.

(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.

(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).

(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.

(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.

(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).

(8) The owner or operator shall keep copies of all records required by d)(2) through d)(8), for at least 2 years.

(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).

(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.

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 have known 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.

(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.

(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.

(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.

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

(6) The permittee shall identify in the annual permit evaluation report the following information during the 12-month reporting period for this/these emissions unit(s):

a. any deviations from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit;

b. the probable cause of such deviations; and

c. any corrective actions or preventive measures which have been or will be taken to remedy the deviations.

If no deviations occurred during the reporting period, the permittee shall identify in the permit evaluation report that no deviations occurred during the reporting period.

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 Limitation:</u>

0.20 TPY of VOC

<u>Applicable Compliance Method:</u>

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.

g) Miscellaneous Requirements

(1) None.

15. T005, T005

Operations, Property and/or Equipment Description:

126,900 gallon storage tank

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

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

a. None.

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

a. None.

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(F)	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 legally and practically enforceable emission limitations forVOC. The following legally and practically enforceable emission limitations are voluntary restrictions established under OAC rule 3745-31-05(F) and 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(F)

(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(F) will remain applicable after the above SIP revisions are approved by U.S. EPA.

p. This rule 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 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(F).

c) Operational Restrictions

(1) The following operational restrictions have been included in this permit for the purpose of establishing legally and practically 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

(2) The maximum true vapor pressure of organic liquid stored in this storage tank shall not exceed 6.91 pound per square inch.

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.

(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.

(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.

(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).

(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.

(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.

(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).

(8) The owner or operator shall keep copies of all records required by d)(2) through d)(8), for at least 2 years.

(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).

(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.

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 have known 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.

(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.

(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.

(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.

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

(6) The permittee shall identify in the annual permit evaluation report the following information during the 12-month reporting period for this/these emissions unit(s):

a. any deviations from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit;

b. the probable cause of such deviations; and

c. any corrective actions or preventive measures which have been or will be taken to remedy the deviations.

If no deviations occurred during the reporting period, the permittee shall identify in the permit evaluation report that no deviations occurred during the reporting period.

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 Limitation:</u>

0.97 TPY of VOC

<u>Applicable Compliance Method:</u>

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.

g) Miscellaneous Requirements

(1) None.

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

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

a. b)(1)f., d)(4)-d)(7) and e)(1).

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

a. None.

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(F)	Carbon monoxide (CO) emissions from P007, P008, P009 and P010 combined, shall not exceed 12.02 lbs/hr and 52.66 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 10.53 lbs/hr and 46.12 TPY. [see b)(2)a and c)(1)]

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		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 P010 combined shall not exceed 11.0 pounds per hour (lbs/hr). 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)(1)

(2) Additional Terms and Conditions

a. This permit establishes the following legally and practically enforceable emission limitations for CO, PM_{10} and VOC. The following legally and practically enforceable emission limitations are voluntary restrictions established under OAC rule 3745-31-05(F) and 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 and downtime of the RTO);

iv. 10.53 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(F).

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(F).

c) Operational Restrictions

(1) The following operational restrictions have been included in this permit for the purpose of establishing legally and practically 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.

(2) The permittee shall burn only natural gas in this emissions unit.

(3) The permittee shall shut down this emissions unit when the RTO experiences an unscheduled shutdown.

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).

a. The permittee shall record the combustion temperature within the thermal oxidizer on a continuous basis.

b. 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:

i. the date and time the deviation began and the magnitude of the deviation at that time;

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

iii. the names of the personnel who conducted the investigation; and

iv. the findings and recommendations.

c. 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.

i. The permittee shall maintain records of the following information for each deviation with it was determined that corrective action was not necessary

(a) the reason(s) corrective action was not necessary; and

(b) the date and time the deviation ended.

ii. The permittee shall maintain records of the following information for each corrective action taken:

(a) a description of the corrective action;

(b) the date it was completed;

(c) the date and time the deviation ended;

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

(e) the combustion temperature within the thermal oxidizer immediately after the corrective action; and

(f) the names of the personnel who performed the work.

iii. 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.

d. <u>Thermal oxidizer combustion temperature</u>

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 below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance.

e. The temperature range/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 range/limit based upon information obtained during future performance tests that demonstrate

compliance with the allowable emission rate(s) for the controlled pollutant(s). In addition, approved revisions to the temperature range/limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of anadministrative modification..

(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.

(3) The permittee shall maintain a record of all instances when this emissions unit was in operation when the RTO was shutdown.

(4) The 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).

(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 FEPTIO 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.

(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.

(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.

e) Reporting Requirements

(1) The permittee shall include any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the Toxic Air

Contaminant Statute, ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration, in the annual Permit Evaluation Report (PER). If no changes to the emissions, emissions unit(s), or the exhaust stack have been made, then the report shall include a statement to this effect.

(2) The permittee shall identify in the annual permit evaluation report the following information during the 12-month reporting period for this/these emissions unit(s):

a. any deviations from emission limitations, operational restrictions, andcontrol device operating parameter limitations that have been detected bythe testing, monitoring, and recordkeeping requirements specified in this permit;

b. the probable cause of such deviations; and

c. any corrective actions or preventive measures which have been or will betaken to remedy the deviations.

If no deviations occurred during the reporting period, the permittee shall identify in the permit evaluation report that no deviations occurredduring the reporting period.

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

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 180 days of permit issuance.

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. Emission testing shall also be conducted to verify the expected emissions for single and combined HAPs.

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 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 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:
10.53 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 based on the results of emission testing conducted on 12/08/2011 in accordance with the following:

i. for PM10, Methods 201201A 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.

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."

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 control efficiency requirements above was demonstrated based on the results of emission testing conducted on 12/8/2011 in accordance with the methods outlined in Section f)(1) of this permit. 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.]

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

g) Miscellaneous Requirements

(1) None.

17. Emissions Unit Group -Hammermills: P002,P003,P004,P005,P006,

EU ID	Operations, Property and/or Equipment Description
P002	hammermill no. 1
P003	hammermill no. 2
P004	hammermill no. 3
P005	hammermill no. 4
P006	hammermill no. 5

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

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

a. None.

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

a. None.

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(F)	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.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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 legally and practically enforceable emission limitations for PM10. The following legally and practically enforceable emission limitations are voluntary restrictions established under OAC rule 3745-31-05(F) and 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(F); 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(F) 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(F).

d. The emission limitation established by this rule is less stringent than the emissions limitation established pursuant to OAC rule 3745-31-05(F).

c) Operational Restrictions

(1) The following operational restrictions have been included in this permit for the purpose of establishing legally and practically 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

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.

e) Reporting Requirements

(1) The permittee shall identify in the annual permit evaluation report the following information during the 12-month reporting period for this/these emissions unit(s):

a. any deviations from emission limitations, operational restrictions, andcontrol device operating parameter limitations that have been detected bythe testing, monitoring, and recordkeeping requirements specified in this permit;

b. the probable cause of such deviations;

c. any corrective actions or preventive measures which have been or will betaken to remedy the deviations; and

d. the following information concerning the monitoring of visible emissions:

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

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

If no deviations occurred during the reporting period, the permittee shall identify in the permit evaluation report that no deviations occurredduring the reporting period.

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

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:
0.003 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 April 21-23, 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.

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."

g) Miscellaneous Requirements

(1) None.