Ohio Environmental Protection Agency

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

10/12/2016

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
Yes	SYNTHETIC MINOR TO AVOID TITLE V
Yes	FEDERALLY ENFORCABLE PTIO (FEPTIO)
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

Mr. Bruce Schwiebert
POET Biorefining - Leipsic, LLC
3875 State Route 65
Leipsic, OH 45856

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE
Facility ID: 0369000051
Permit Number: P0120915
Permit Type: OAC Chapter 3745-31 Modification
County: Putnam

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA) Air Pollution Permit-to-Install and Operate (PTIO) which will allow you to install, modify, and/or operate the described emissions unit(s) in the manner indicated in the permit. Because this permit contains conditions and restrictions, please read it very carefully. In this letter you will find the information on the following topics:

- **How to appeal this permit**
- **How to save money, reduce pollution and reduce energy consumption**
- **How to give us feedback on your permitting experience**
- **How to get an electronic copy of your permit**
- **What should you do if you notice a spill or environmental emergency?**

How to appeal this permit

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

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

How to save money, reduce pollution and reduce energy consumption

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

How to give us feedback on your permitting experience

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

How to get an electronic copy of your permit

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

What should you do if you notice a spill or environmental emergency?

Any spill or environmental emergency which may endanger human health or the environment should be reported to the Emergency Response 24-HOUR EMERGENCY SPILL HOTLINE toll-free at (800) 282-9378. Report non-emergency complaints to the appropriate district office or local air agency.

If you have any questions regarding your permit, please contact Ohio EPA DAPC, Northwest District Office at (419)352-8461 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,

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

Cc: Ohio EPA-NWDO

Response to Comments

Facility ID:	0369000051
Facility Name:	POET Biorefining - Leipsic, LLC
Facility Description:	Dry grain milling ethanol production facility
Facility Address:	3875 State Route 65 Leipsic, OH 45856 Putnam County
Permit:	P0120915, Permit-To-Install and Operate - OAC Chapter 3745-31 Modification
A public notice for the draft permit issuance was published in the Ohio EPA Weekly Review and appeared in the Putnam County Sentinel on 09/07/2016. The comment period ended on 10/07/2016.	
Hearing date (if held)	
Hearing Public Notice Date (if different from draft public notice)	

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

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

1. Topic: None

a. Comment:

POET agrees with the lb/hr limits set in Condition 3.b)(1)a for P007. However, for normal operations, POET request that the tons per year limit be based on 8,760 hours of operation. Please increase the tons per rolling, 12-month period limits to 45.99 and 43.8 for CO and PM10, respectively. The other limited parameters are already based on 8,760 hours. These limits are also listed in Conditions 3.b)(2)a., 3.f)(2)a., 13.b(1)a., 13.b)(2)a. and 13.f)(1)a.

b. Response: Changes Made.

c. Comment:

Condition 4.b)(2)a.i.(a) for P010 includes a footnote that indicates the fluid bed cooler stack (SV010), the storage silo stack (SV011) and the flat storage stack (SV012) is limited to 0.003 gr PM10/dscf. This is true for the fluid bed cooler. However, the storage silo and flat storage is limited to 0.004 gr PM10/dscf in Condition 4.b)(2)a.iii.(a). Please remove the footnote.

d. Response: Change Made.

e. Comment:

Please remove SV010 from Condition 4.f)(1)g. for P010. The fluid bed cooler stack (SV010) is addressed earlier in this section and has a lower gr PM10/dscf requirements.

f. Response: Change Made.

g. Comment:

Please change the title for P902 to "DDGS Loadout".

h. Response: Change Made.

i. Comment:

Because vapor pressures of fluids stored within tanks T001, T002, T003, T004 and T005 vary based on the temperature of the fluid, it would be more clear to associate a temperature with the vapor pressures used in c)(2) and d)(1)b and e)(5) of each storage tank section. POET requests vapor pressure values be listed as follows:

a. T001 – 0.86 pounds per square inch at 67.9 degrees Fahrenheit,
b. T002 – 9.26 pounds per square inch at 67.9 degrees Fahrenheit,
c. T003 – 0.86 pounds per square inch at 67.9 degrees Fahrenheit,
d. T004 – 0.86 pounds per square inch at 67.9 degrees Fahrenheit, and
e. T005 – 9.26 pounds per square inch at 67.9 degrees Fahrenheit.

These values are representative of ethanol and the denaturant specified in the Tanks 4.0 runs, but are provided at the higher temperatures expected during the summer months.

j. Response: Change Made.

k. Comment:

For consistency, please change the maximum allowable cumulative throughput for months 1-6 to 3,128,250 in Conditions 9.c)(1)c. and 12.c)(1)b.

l. Response: Change Made.

m. Comment:

Please change the annual throughput to 6,256,*500* in Condition 9.f)(1)a. to match the value used in others places within this section.

n. Response: Change Made.

FINAL

Division of Air Pollution Control
Permit-to-Install and Operate
for
POET Biorefining - Leipsic, LLC

Facility ID:	0369000051
Permit Number:	P0120915
Permit Type:	OAC Chapter 3745-31 Modification
Issued:	10/12/2016
Effective:	10/12/2016
Expiration:	2/13/2020

Ohio Environmental Protection Agency

Division of Air Pollution Control
Permit-to-Install and Operate
for
POET Biorefining - Leipsic, LLC

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Authorization

Facility ID:	0369000051
Application Number(s):	A0055506
Permit Number:	P0120915
Permit Description:	Chapter 31 Modification permit to install a new fermenter and increase ethanol production.
Permit Type:	OAC Chapter 3745-31 Modification
Permit Fee:	$12,650.00
Issue Date:	10/12/2016
Effective Date:	10/12/2016
Expiration Date:	2/13/2020

Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

POET Biorefining - Leipsic, LLC
3875 State Route 65
Leipsic, OH 45856

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: P0120915
Permit Description: Chapter 31 Modification permit to install a new fermenter and increase ethanol production.

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

Emissions Unit ID:	**J001**
Company Equipment ID:	ethanol loading
Superseded Permit Number:	P0117883
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P001**
Company Equipment ID:	grain handling
Superseded Permit Number:	P0117883
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P007**
Company Equipment ID:	ethanol production
Superseded Permit Number:	P0119694
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P010**
Company Equipment ID:	DDGS storage
Superseded Permit Number:	P0117883
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P011**
Company Equipment ID:	cooling tower
Superseded Permit Number:	P0117883
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P901**
Company Equipment ID:	grain receiving
Superseded Permit Number:	P0117883
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P902**
Company Equipment ID:	DDCS loadout
Superseded Permit Number:	P0117883
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**T001**
Company Equipment ID:	190 ethanol tank
Superseded Permit Number:	P0117883
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**T002**
Company Equipment ID:	denaturant tank
Superseded Permit Number:	P0117883
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**T003**
Company Equipment ID:	200 ethanol tank
Superseded Permit Number:	P0117883
General Permit Category and Type:	Not Applicable

Emissions Unit ID:	**T004**
Company Equipment ID:	200 ethanol tank
Superseded Permit Number:	P0117883
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**T005**
Company Equipment ID:	denaturant tank
Superseded Permit Number:	P0117883
General Permit Category and Type:	Not Applicable

Group Name: Dryers

Emissions Unit ID:	**P008**
Company Equipment ID:	dryer no. 1
Superseded Permit Number:	P0117883
General Permit Category andType:	Not Applicable
Emissions Unit ID:	**P009**
Company Equipment ID:	dryer no. 2
Superseded Permit Number:	P0117883
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 [DO/LAA] 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. J001, ethanol loading

Operations, Property and/or Equipment Description:

ethanol and gasoline 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) through d)(7) 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. b)(1)a., b)(2)a., c)(1), c)(2), d)(1), d)(2), e)(1), f)(1)a. and f)(1)b.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)	Volatile organic compound (VOC) emissions during loading of gasoline shall not exceed 5.47 pounds of VOC/1,000 gallons of denatured ethanol and 5.71 pounds of VOC/1,000 gallons of E85 loaded into the gasoline delivery vessel. 4.73 tons VOC per rolling, 12-month period See b)(2)a. and c)(1).
b.	OAC rule 3745-31-05(A)(3), as effective 6/30/08	See b)(2)b. and b)(2)c.
c.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective 6/30/08	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC, nitrogen oxides (NOx), carbon monoxide (CO), sulfur dioxide (SO2) and particulate

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		matter less than 10 microns in size (PM10) emissions from this air contaminant source since the potential to emit is less than 10 tons/year. See b)(2)d.
d.	OAC rule 3745-21-07(M)(2)	See b)(2)e.
e.	OAC rule 3745-114-01 ORC 3704.03(F)	See d)(3) through d)(7) and e)(2).

(2) Additional Terms and Conditions

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

i. 5.47 lbs VOC/1,000 gallons denatured ethanol and 5.74 lbs VOC/1,000 gallons of E85; and

ii. 4.73 tons VOC per rolling, 12-month period.

b. The following requirements contained in this permit satisfy the BAT requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective June 30, 2008:

i. compliance with the following limitations:

(a) 0.12 ton NOx per month averaged over a 12-month rolling period;

(b) 0.30 ton CO per month averaged over a 12-month rolling period; and

(c) Install a flare system with a minimum control efficiency of 98%, by weight for control of VOC.

The emissions of SO2 and PM10 from the combustion of natural gas from this emissions unit have been determined to be negligible and therefore emission limitations under OAC rule 3745-31-05(A)(3), as effective 6/30/08, have not been established in this permit.

c. This BAT emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).

d. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.

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

c) Operational Restrictions

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

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

b. The maximum annual ethanol throughput rate for this emissions unit shall not exceed 86 million gallons (includes up to 10,000,000 gallons of E85), based upon a rolling, 12-month summation of the throughput rates.

Month(s)	Maximum Allowable Cumulative Throughput (gallons)
1 – 6	43 million
1 – 12	86 million

After the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, compliance with the annual throughput rate limitation shall be based upon a rolling, 12-month summation of the throughput rates.

(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.

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 following information:

a. the throughput rate for each month;

b. during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall record the cumulative throughput rate for each calendar month; and

c. beginning after the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the rolling, 12-month summation of the throughput rates.

(3) The initial PTI application(s) [PTI 03-17156 issued 12/5/2006] for this/these emissions unit(s), B001, B002, J001, P007, P008, P009 and P010, were 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 this/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): 4.5 (permit total)
   Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 85.16
   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): 0.40 (permit total)
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1.14
MAGLC (ug/m3): 6.47

The permittee, has demonstrated that emissions of hexane, formaldehyde, and acetaldehyde, from emissions unit(s) B001, B002, J001, P007, P008, P009, and P010, are each 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.

(7) Modeling to demonstrate compliance with, the “Toxic Air Contaminant Statute”, ORC 3704.03(F)(4)(b), was not necessary because the increase in the emissions unit’s maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified federally enforceable permit to install and operate (FEPTIO) prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new FEPTIO.

e) Reporting Requirements

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

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

i. all exceedances of the rolling, 12-month production rate limitation; and for the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, all exceedances of the maximum allowable cumulative throughput rate levels; and

ii. identify all periods of time during which the pilot flame was not functioning properly or the flare was not maintained as required in this permit. The reports shall include the date, time, and duration of each such period.

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

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

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

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

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

(2) 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.

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

5.47 lbs VOC/1000 gal of denatured ethanol and 5.71 lbs VOC/1000 gal of E85

<u>Applicable Compliance Method:</u> These emission limitations are based upon the emissions factors in AP-42, section 5.2.2 (1/95) and the calculations provided in Application # A0055506. If required, the permittee shall demonstrate compliance with the emission limitations above in accordance with Methods 1 – 4 and 18, 25 or 25A, as appropriate, of 40 CFR, Part 60, Appendix A.

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

4.73 tons VOC per rolling, 12-month period

Applicable Compliance Method:

The emission limitation above represents the potential to emit for this emissions unit and was determined by combining the calculated emissions from loading denatured ethanol and E85. The emissions were calculated by multiplying an emission factor of 5.47 lbs VOC/1000 gallons of denatured ethanol and 5.71 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 Application #A0055506, the maximum annual ethanol throughput rate for this emissions unit of 86 million gallons (includes up to 10,000,000 gallons of E85), and by a control factor of (1-0.98*), and then dividing by 2000 pounds/ton. Therefore, provided compliance is shown with the rolling, 12-month production restriction, compliance with the emission limitation above shall also be demonstrated.

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

c. Emission Limitation:

0.30 ton CO per month averaged over a 12-month rolling period.

Applicable Compliance Method:

The emission limitation above represents the potential to emit for this emissions unit and was calculated by multiplying the manufacturer's guaranteed emission rate of 0.084 lb CO per 1000 gallons by the maximum annual throughout of 86 million gallons and then dividing by 2000 pounds/ton and 12 months/1 year. Therefore, provided compliance is shown with the rolling, 12-month production restriction, compliance with the emission limitation above shall also be demonstrated.

d. Emission Limitation:

0.12 ton NOx per month averaged over a 12-month rolling period.

Applicable Compliance Method:

The emission limitation above represents the potential to emit for this emissions unit and was calculated by multiplying the manufacturer's guaranteed emission rate of 0.0334 lb NOx per 1000 gallons by the maximum annual throughout of 86 million gallons and then dividing by 2000 pounds/ton and 12 months/1 year. Therefore, provided compliance is shown with the rolling, 12-month production restriction, compliance with the emission limitation above shall also be demonstrated.

e. Emission Limitation:

The flare system shall meet a minimum control efficiency of 98% for VOC emissions

Applicable Compliance Method:

The control efficiency of the flare was determined through emission factors from AP-42, Chapter 5.2 - Transportation and Marketing of Petroleum Liquids (01/95) in conjunction with information supplied by the permittee in Application #A0055506. If required, the permittee shall demonstrate compliance with the control efficiency of the flare listed above in accordance with Methods 1 – 4 and 18, 25 or 25A, as appropriate, of 40 CFR, Part 60, Appendix A.

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.

2. P001, grain handling

Operations, Property and/or Equipment Description:

grain handling and surge/storage bin

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. b)(1)a., b)(2)a., b)(2)f., c)(1), d)(1) and f)(1)a. through f)(1)c.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)	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); 0.38 ton per rolling, 12-month period Visible particulate emissions (PE) from the baghouse stack(s) shall not exceed 0% opacity, as a six-minute average. See b)(2)a. and b)(2)f.
b.	OAC rule 3745-31-05(A)(3), as effective 6/30/08	Install a baghouse that is designed to meet 0.004 gr PM10/dscf See b)(2)b.
c.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective 6/30/08	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PM10 emissions from this air contaminant

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		source since the potential to emit is less than 10 tons/year. See b)(2)c.
d.	OAC rule 3745-17-11(B)	See b)(2)d.
e.	OAC rule 3745-17-07(A)	See b)(2)e.
f.	40 CFR, Part 60, Subpart DD	The emission limitations specified by this rule are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(D).

(2) Additional Terms and Conditions

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

i. 0.004 gr PM10/dscf;

ii. 0.38 ton PM10 per rolling, 12-month period; and

iii. Visible PE from the baghouse stack(s) shall not exceed 0% opacity, as a six-minute average.

b. This BAT emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).

c. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.

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

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

f. All emissions of particulate matter are PM10.

c) Operational Restrictions

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

a. Install a baghouse that is designed to meet 0.004 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 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.

e) Reporting Requirements

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

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

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

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

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

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

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

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

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

(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 Limitation:

Install a baghouse that is designed to meet 0.004 gr PM10/dscf

Applicable Compliance Method:

If required, compliance with the emission limitation above shall be demonstrated based on the results of emission testing conducted in accordance with Methods 1 – 4 of 40 CFR, Part 60, Appendix A and Methods 201, 201A and 202 of 40 CFR, Part 51, Appendix M.

b. Emission Limitation:

0.38 ton PM10 per rolling, 12-month period

Applicable Compliance Method:

The rolling, 12-month PM10 emission limitation was calculated 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 (2,500 cfm) x 60 min/hour x 8760 hours/yr x ton/2000 lbs

Therefore, provided compliance is shown with the grain loading emission limitation, compliance with the emission limitation above shall also be demonstrated.

c. Emission Limitation:

Visible PE from the baghouse stack(s) shall not exceed 0% 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 of 40 CFR, Part 60, Appendix A.

g) Miscellaneous Requirements

(1) None.

3. P007, ethanol production

Operations, Property and/or Equipment Description:

ethanol production operations (mash tank, fermenters, beer well, distillation column, stripper, rectifier and evaporator)

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)i., d)(5) through d)(9) 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. b)(1)a., b)(2)a., b)(2)b., c)(1), d)(1), d)(2), d)(3), d)(4), e)(1) and f)(2)a. through f)(2)g.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)	**<u>Emission Limitations during normal operation:</u>** Carbon monoxide (CO) emissions from P007, P008 and P009 combined, shall not exceed 10.5 lbs/hr and 45.99 tons per rolling, 12-month period; Particulate matter equal to or less than 10 microns in size (PM10), from emissions units P007, P008 and P009 combined, shall not exceed 10.0 lbs/hr and 43.8 tons per rolling, 12-month period [See b)(2)b.]; Volatile organic compound (VOC) emissions from P007, P008 and P009 combined shall not exceed 11.26 lbs/hr

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		and 49.32 tons per rolling, 12-month period; Nitrogen oxides (NOx) emissions from emissions units P007, P008 and P009 combined shall not exceed 11.0 lbs/hr and 48.2 tons per rolling, 12-month period; and Visible particulate emissions (PE) from the stack(s) serving this emissions unit shall not exceed 5% opacity, as a six-minute average. See b)(2)a. and c)(1). **<u>Emission Limitations 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 21.77 lbs/hr and 5.44 tons per rolling, 12-month period; and Visible particulate emissions (PE) from the stack(s) serving this emissions unit shall not exceed 5% opacity, as a six-minute average. See b)(2)a. and c)(1). **<u>Emission Limitations during downtime of the scrubber</u>** VOC emissions shall not exceed 45.66 lbs/hr and 2.28 tons per rolling, 12-month period; CO emissions shall not exceed 10.5 lbs/hr and 0.53 tons per rolling, 12-month period; NOx emissions shall not exceed 11.0 lbs/hr and 0.55 tons per rolling, 12-month

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		period; PM10 emissions shall not exceed 10 lbs/hr and 0.5 ton per rolling, 12-month period [See b)(2)b.] Visible PE from the stack(s) serving this emissions unit shall not exceed 5% opacity, as a six-minute average during scrubber downtime operations. See b)(2)a. and c)(1).
b.	ORC rule 3704.03(T)	See b)(2)g.
c.	OAC rule 3745-31-05(A)(3), as effective 6/30/08	See b)(2)c. and b)(2)d.
d.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective 6/30/2008	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the SO2 emissions from this air contaminant source since the potential to emit is less than 10 tons/year. See b)(2)e.
e.	OAC rule 3745-21-09(DD)	See the requirements for emissions unit P801.
f.	40 CFR Part 60, Subpart VV	See the requirements for emissions unit P801.
g.	OAC rule 3745-17-07(A)	See b)(2)f.
h.	OAC rule 3745-17-11(B)	See b)(2)f.
i.	OAC rule 3745-114-01 ORC 3704.03(F)	See d)(5) through d)(9) and e)(2).

(2) Additional Terms and Conditions

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

i. 10.5 lbs/hr and 45.99 tons CO per rolling, 12-month period, during normal operations from P007, P008 and P009 combined;

ii. 10.0 lbs/hr PM10 and 43.8 tons PM10 per rolling, 12-month period during normal operationsfrom P007, P008, P009 combined;

iii. 11.26 lbs/hr and 49.32 tons VOC per rolling, 12-month period during normal operations for P007, P008 and P009 combined;

iv. 11.0 lbs/hr and 48.2 tons NOx per rolling, 12-month period during normal operations for P007, P008 and P009 combined;

v. Visible PE shall not exceed 5% opacity, as a six-minute average during normal operations;

vi. 21.77 lbs/hr and 5.44 tons VOC per rolling 12-month period during downtime of the RTO;

vii. Visible PE shall not exceed 5% opacity, as a six-minute average during RTO downtime operations;

viii. 45.66 lbs/hr and 2.28 tons VOC per rolling, 12-month period during downtime of the scrubber;

ix. 10.5 lbs/hr and 0.53 ton CO per rolling, 12-month period during downtime of the scrubber;

x. 11.0 lbs/hr and 0.55 ton NOx per rolling, 12-month period during downtime of the scrubber;

xi. 10 lbs/hr and 0.5 ton PM10 per rolling, 12-month period during downtime of the scrubber; and

xii. Visible PE shall not exceed 5% opacity, as a six-minute average during scrubber downtime operations.

b. All emissions of particulate matter are PM10.

c. 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 6/30/08, have not been established in this permit.

d. This BAT emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).

e. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.

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

g. The BAT requirements for PM10, CO, NOx and VOC emissions under this rule have been determined to be compliance with the tons per rolling, 12-month period emission limitations in OAC rule 3745-31-05(D).

c) Operational Restrictions

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

a. the use of a 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 [See c)(1)d.] and 98% for VOC emissions;

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;

e. 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. During down time of the RTO, while this emissions unit continues to operate, the maximum annual operating hours for this emissions unit shall not exceed 500, based upon a rolling, 12-month summation of the operating hours 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.

To ensure enforceability during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall not exceed the operating hours levels specified in the following table:

Month(s)	Maximum Allowable Cumulative Operating Hours
1 - 3	500
1 – 6	500
1 – 9	500
1 – 12	500

After the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, compliance with the annual operating hours limitation shall be based upon a rolling, 12-month summation of the operating hours.

f. During the down time of the scrubber, while this emissions unit continues to operate, the maximum annual operating hours for this emissions unit shall not exceed 100, based upon a rolling, 12-month summation of the operating hours. The permittee shall schedule and perform the activities to correspond to other shut down maintenance activities.

To ensure enforceability during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall not exceed the operating hours levels specified in the following table:

Month(s)	Maximum Allowable Cumulative Operating Hours
1 - 3	100
1 – 6	100
1 – 9	100
1 – 12	100

After the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, compliance with the annual operating hours limitation shall be based upon a rolling, 12-month summation of the operating hours.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain monthly records of the following information for when the RTO is shutdown for unscheduled maintenance or other operational reasons, while this emissions unit is in operation:

a. the operating hours for each month;

b. during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall record the cumulative operating hours for each calendar month; and

c. beginning after the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the rolling, 12-month summation of the operating hours.

(2) The permittee shall maintain monthly records of the following information during the down time of the scrubber, while this emissions unit continues to operate:

a. the operating hours for each month;

b. during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall record the cumulative operating hours for each calendar month; and

c. beginning after the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the rolling, 12-month summation of the operating hours.

(3) 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 an administrative modification.

(4) 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 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 indicator ranges</u>

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.

(5) The initial PTI application(s) [PTI 03-17156 issued 12/5/2006] for this/these emissions unit(s), B001, B002, J001, P007, P008, P009 and P010, were 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 this/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): 4.5 (permit total)
   Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 85.16

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): 0.40 (permit total)
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1.14
MAGLC (ug/m3): 6.47

The permittee, has demonstrated that emissions of hexane, formaldehyde, and acetaldehyde, from emissions unit(s) B001, B002, J001, P007, P008, P009, and P010, are each 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.

(9) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the increase in the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified federally enforceable permit to install and operate (FEPTIO) prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new FEPTIO.

e) Reporting Requirements

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

a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the

potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:

i. all exceedances of the rolling, 12-month limitation on the hours of operation for this emissions unit in c)(1)e. and c)(1)f.; and for the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, all exceedances of the maximum allowable cumulative hours of operation;

ii. each period of time (start time and date, and end time and date) when the average combustion temperature within the thermal oxidizer was outside of the acceptable range;

iii. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the thermal oxidizer;

iv. each period of time (start time and date, and end time and date) when the scrubber flow rate was outside of the appropriate range or exceeded the applicable limit contained in this permit; and

v. any period of time (start time and date, and end time and date) when the emissions unit(s) was in operation and the process emissions were not vented to the scrubber.

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

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

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

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

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

(2) 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.

(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 during the scrubber bypass and RTO bypass scenarios. Compliance shall be demonstrated with the control efficiency limitation for VOCs from the scrubber controlling this emissions unit during an RTO bypass, and for the control efficiency limitation for VOCs, NOx and PM10 from the RTO controlling this emissions unit during a scrubber bypass.

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

i. for PM10, Methods 1-4 of 40 CFR, Part 60, Appendix and 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; 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 and P009 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. <u>Emission Limitations:</u>

10.5 lbs/hr and 45.99 tons CO per rolling, 12-month period during normal operations;

10.0 lbs/hr and 43.8 tons PM10 per rolling, 12-month period during normal operations;

11.26 lbs/hr and 49.32 VOC tons per rolling, 12-month period during normal operations; and

11.0 lbs/hr and 48.2 tons NOx per rolling, 12-month period during normal operations

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 1–4 of 40 CFR, Part 60, Appendix A and 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 rolling, 12-month emission limitations were developed by multiplying the respective hourly emission limitations by the maximum operating schedule of 8760 hours/year for normal operations, then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitations, compliance with the annual limitations shall also be demonstrated.

b. Emission Limitations:

45.66 lbs/hr and 2.28 tons VOC per rolling, 12-month period during downtime of the scrubber for emissions units P007, P008 and P009 combined;

10.5 lbs/hr and 0.53 tons CO per rolling, 12-month period during downtime of the scrubber for emissions units P007, P008 and P009 combined;

11.0 lbs NOx/hr and 0.55 ton NOx per rolling, 12-month period during downtime of the scrubber for emissions units P007, P008 and P009 combined; and

10.0 lbs/hr and 0.5 ton PM10 per rolling, 12-month period during downtime of the scrubber for emissions units P007, P008 and P009 combined

Applicable Compliance Method:

Compliance with the hourly allowable emission limitations above shall be demonstrated based on the results of emission testing in accordance with the following methods and the requirements in f)(1):

i. for PM10, Methods 1 – 4 of 40 CFR, Part 60, Appendix A and 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; and

iii. 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.).

Compliance with the CO hourly allowable emission limitation shall be assumed because due to the creation of CO in the RTO, because it is not possible to perform testing to demonstrate compliance directly associated with the destruction of CO entering the RTO.

The rolling, 12-month emission limitations were developed by multiplying the respective hourly emission limitations by the maximum operating schedule of 100 hours/year for downtime of the scrubber, then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitations and the hours of operation restriction, compliance with the annual limitations shall also be demonstrated.

c. Emission Limitations:

45.66 lbs/hr VOC and 5.44 tons per rolling, 12-month period during downtime of the RTO

Applicable Compliance Method:

Compliance with the hourly allowable emission limitations above shall be demonstrated based on the results of emission testing in accordance with the following methods and the requirements in f)(1):

i. 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 rolling, 12-month limitations were developed by multiplying the respective hourly emission limitations by the maximum operating schedule of 500 hours for RTO downtime then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitations and the hours of operation restriction, compliance with the annual limitations shall also be demonstrated.

d. Emission Limitation:

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

Appliance Compliance Method:

If required, compliance with emission limitation above shall be determined in accordance with Method 9 of 40 CFR, Part 60, Appendix A.

e. Emission Limitation:

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

Appliance Compliance Method:

If required, compliance with emission limitation above shall be determined in accordance with Method 9 of 40 CFR, Part 60, Appendix A.

f. Emission Limitation:

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

Appliance Compliance Method:

If required, compliance with emission limitation above shall be determined in accordance with Method 9 of 40 CFR, Part 60, Appendix A.

g. 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 shall be demonstrated based on the results of emission testing conducted 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.

4. P010, DDGS storage

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)g., d)(3) through d)(7) 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. b)(1)a., b)(2)b., c)(1), d)(1), d)(2), e)(1) and f)(1)a. through f)(1)f.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)	**<u>From Stack SV010 (fluid bed cooler stack) during normal operations:</u>** Particulate matter less than 10 microns in size (PM10) emissions shall not exceed 0.003 grain per dry standard cubic foot (gr/dscf) and 2.68 tons per rolling, 12-month period [See b)(2)b.]; Visible PE, from stack SV010 shall not exceed 0% opacity, as a six-minute average. Volatile organic compound (VOC) emissions shall not exceed 6.83 lbs/hr and 29.92 tons per rolling, 12-month period **<u>From Stack SV010(fluid bed cooler</u>**

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		stack) during RTO downtime: VOC emissions shall not exceed 11.49 lbs/hr and 0.57 ton per rolling, 12-month period **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 tons per rolling, 12-month period for both stack SV011 and SV012 combined [See b)(2)b.]; Visible 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)c. and c)(1).
b.	ORC rule 3704.03(T)	2.54 tons VOC per month averaged over a 12-month rolling period during normal operations and RTO downtime operations
c.	OAC rule 3745-31-05(A)(3), as effective 6/30/08	Install baghouses that are designed to meet 0.003 gr PM10/dscf on stack SV010 and 0.004 gr PM10/dscf on stacks SV011 and SV012. See b)(2)d.
d.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective 6/30/08	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PM10 emissions from this air contaminant source since the potential to emit is less than 10 tons/year. See b)(2)e.
e.	OAC rule 3745-17-11(B)	See b)(2)f..
f.	OAC rule 3745-17-07(A)	See b)(2)f.
g.	OAC rule 3745-114-01 ORC 3704.03(F)	See d)(3) through d)(7) and e)(2).

(2) Additional Terms and Conditions

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

i. From Stack SV010 (fluid bed cooler stack) during normal operations:

(a) 0.003 gr PM10/dscf*; 2.68 tons PM10 per rolling, 12-month period;

(b) 6.83 lbs VOC/hr and 29.92 tons VOC per rolling, 12-month period; and

(c) Visible PE, from stack SV010 shall not exceed 0% opacity, as a six-minute average.

ii. From Stack SV010 (fluid bed cooler stack) RTO Downtime:

(a) 11.49 lbs VOC/hr and 0.57 ton VOC per rolling, 12-month period.

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

(a) 0.004 gr PM10/dscf; 1.20 tons PM10 per rolling, 12-month period for both stack SV011 and SV012 combined; and

(b) Visible 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. This BAT emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).

e. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.

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

c) Operational Restrictions

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

a. Install baghouses that are designed to meet 0.003 gr PM10/dscf on stack SV010 and 0.004 gr PM10/dscf on stacks SV011 and SV012.

b. During the downtime of the RTO [Stack SV010 (fluid bed cooler stack)], while this emissions unit continues to operate, the maximum annual operating hours for this emissions unit shall not exceed 100, based upon a rolling, 12-month summation of the operating hours. The permittee shall schedule and perform the activities to correspond to other shut down maintenance activities.

To ensure enforceability during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall not exceed the operating hours levels specified in the following table:

Month(s)	Maximum Allowable Cumulative Operating Hours
1 - 3	100
1 – 6	100
1 – 9	100
1 – 12	100

After the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, compliance with the annual operating hours limitation shall be based upon a rolling, 12-month summation of the operating hours.

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) 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.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain monthly records of the following information during the down time of the RTO, while this emissions unit continues to operate:

a. the operating hours for each month;

b. during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall record the cumulative operating hours for each calendar month; and

c. beginning after the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the rolling, 12-month summation of the operating hours.

(2) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the 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.

(3) The initial PTI application(s) [PTI 03-17156 issued 12/5/2006] for this/these emissions unit(s), B001, B002, J001, P007, P008, P009 and P010, were 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 this/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): 4.5
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 85.16
MAGLC (ug/m3): 790

Toxic Contaminant: Hexane
TLV (mg/m3): 176.23
Maximum Hourly Emission Rate (lbs/hr): 0.70
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): 0.40
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1.14
MAGLC (ug/m3): 6.47

The permittee, has demonstrated that emissions of hexane, formaldehyde, and acetaldehyde, from emissions unit(s) B001, B002, J001, P007, P008, P009, and P010, are each 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.

(7) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the increase in the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified federally enforceable permit to install and operate (FEPTIO) prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new FEPTIO.

e) Reporting Requirements

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

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

i. all exceedances of the rolling, 12-month limitation on the hours of operation for this emissions unit in c)(1)b.; and for the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, all exceedances of the maximum allowable cumulative hours of operation;

ii. all days during which any visible particulate emissions were observed from the stack(s) serving this emissions unit; and

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

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

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

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

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

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

agency). 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 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.

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

From Stack SV010 (fluid bed cooler stack) during normal operations: PM10 emissions shall not exceed 0.003 gr PM10/dscf and 2.68 tons PM10 per rolling, 12-month period.

<u>Applicable Compliance Method</u>:

If required, compliance with the 0.003 gr PM10/dscf emission limitation shall be demonstrated based on the results of emission testing conducted in accordance with Methods 1 – 4 of 40 CFR, Part 60, Appendix A and Methods 201, 201A and 202 of 40 CFR, Part 51, Appendix M.

The rolling, 12-month PM10 emission limitation was calculated 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 (23,800 cfm) x 60 min/hour x 8760 hours/yr x ton/2000 lbs

Therefore, provided compliance is shown with the grain loading emission limitation, compliance with the emission limitation above shall also be demonstrated.

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

From Stack SV010 (fluid bed cooler stack) during normal operations: Visible PE, from stack SV010 shall not exceed 0% opacity, as a six-minute average.

Appliance Compliance Method:

If required, compliance with emission limitation above shall be determined in accordance with Method 9 of 40 CFR, Part 60, Appendix A.

c. Emission Limitations:

From Stack SV010 (fluid bed cooler stack) during normal operations: 6.83 lbs VOC/hr and 29.92 tons VOC per rolling, 12-month period

Applicable Compliance Method:

The hourly limitation was developed by multiplying the previous permit limit of 0.22 lb of VOC per ton of DDGS by the maximum DDGS production rate of 27 tons/hr and adding an additional safety factor of 15%. If required, compliance with the hourly emission limitation 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.

The rolling, 12-month emission limitation was developed by multiplying the hourly emission limitation by the maximum operating schedule of 8760 hours/year, then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance with the annual limitations shall also be demonstrated.

d. Emission Limitations:

From Stack SV010 (fluid bed cooler stack) RTO Downtime: VOC emissions shall not exceed 11.49 lbs/hr and 0.57 ton per rolling, 12-month period

Applicable Compliance Method:

The hourly limitation was developed by multiplying an emission factor of 0.37 lb of VOC per ton of DDGS cooled by the maximum production rate of 27 tons/hr and adding an additional safety factor of 15%. If required, compliance with the hourly emission limitation 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.

The annual rolling, 12-month limitation was developed by multiplying the hourly emission limitation by the maximum operating schedule of 100 hours for RTO downtime, then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation and the hours of operation restriction, compliance with the annual limitations shall also be demonstrated.

e. Emission Limitations:

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 tons per rolling, 12-month period for both stack SV011 and SV012 combined

Applicable Compliance Method:

If required, compliance with the 0.004 gr PM10/dscf emission limitation shall be demonstrated based on the results of emission testing conducted in accordance with Methods 1 – 4 of 40 CFR, Part 60, Appendix A and Methods 201, 201A and 202 of 40 CFR, Part 51, Appendix M.

The rolling, 12-month PM10 emission limitation was calculated 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 (8,000 cfm) x 60 min/hour x 8760 hours/yr x ton/2000 lbs

Therefore, provided compliance is shown with the grain loading emission limitation, compliance with the emission limitation above shall also be demonstrated.

f. Emission Limitation:

From Stacks SV011 and SV012 (Storage silo and Flat storage): Visible PE, from the stack(s) serving this portion of the emissions unit, shall not exceed 0% opacity, as a six-minute average.

Appliance Compliance Method:

If required, compliance with emission limitation above shall be determined in accordance with Method 9 of 40 CFR, Part 60, Appendix A.

g. Emission Limitation:

Install baghouses that are designed to meet 0.004 gr PM10/dscf on stacks SV011 and SV012.

Applicable Compliance Method:

If required, compliance with the 0.004 gr PM10/dscf emission limitation shall be demonstrated based on the results of emission testing conducted in accordance with Methods 1 – 4 of 40 CFR, Part 60, Appendix A and Methods 201, 201A and 202 of 40 CFR, Part 51, Appendix M.

h. Emission Limitation:

2.54 tons VOC per month averaged over a 12-month rolling period during normal operations and RTO downtime operations

Applicable Compliance Method:

The monthly average limitation was determined by multiplying the respective lb/hr limitations by the maximum annual operating schedule of 8760 hours for normal operations and 100 hours for RTO downtime and then dividing by 2000 lbs/ton and 12 months/year.

g) Miscellaneous Requirements

(1) None.

1. P011, cooling tower

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. b)(1)a., b)(2)a., b)(2)b., c)(1), d)(1), d)(2), e)(1), f)(1)a. and f)(1)b.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)	Particulate matter equal to or less than 10 microns in size (PM_{10}) shall not exceed 1.31 pounds/hour (lbs/hr) and 5.76 tons per rolling, 12-month period Visible particulate emissions (PE) shall not exceed 5% opacity, as a six-minute average. See b)(2)a., b)(2)b. and c)(1).
b.	OAC rule 3745-31-05(A)(3), as effective 6/30/08	0.48 ton PM10 per month averaged over a 12-month rolling period See b)(2)c.
c.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective 6/30/08	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PM10 emissions from this air contaminant source since the potential to emit is less

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		than 10 tons/year. 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.

(2) Additional Terms and Conditions

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

i. 1.31 lbs/hr and 5.76 tons PM10 per rolling, 12-month period; and

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

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

c. This BAT emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).

d. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.

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

c) Operational Restrictions

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

a. The 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 submit quarterly deviation (excursion) reports that identify:

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

i. each period of time (start time and date, and end time and date) when the TDS content of the circulating cooling water was outside of the acceptable range;

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

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

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

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

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

(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>

PM_{10} shall not exceed 1.31 lbs/hr and 5.76 tons per rolling, 12-month period.

<u>Applicable Compliance Methods:</u>

The hourly PM_{10} emission limitation was developed by multiplying the maximum water flow rate of 1.80 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 rolling, 12-month 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 emission limitation and the restriction on TDS, compliance with the rolling, 12-month emission limitation shall also 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 of 40 CFR, Part 60, Appendix A.

c. Emission Limitation:

0.48 ton PM10 per month averaged over a 12-month rolling period

Applicable Compliance Method:

The emission limitation above was determined by multiplying the lb/hr limitation by the maximum operating schedule and then dividing by 2000 lbs/ton and yr/12 months.

g) Miscellaneous Requirements

(1) None.

5. P901, grain receiving

Operations, Property and/or Equipment Description:

grain receiving, transferring, conveying and storage

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. b)(1)a., b)(2)a., c)(1), d)(1), d)(2), d)(3), e)(1) and f)(1)a. through f)(1)e.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)	**<u>Stack SV001</u>** The baghouse controlling the grain receiving, conveyors and storage bins 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). 3.52 tons PM10 per rolling, 12-month period from grain receiving, conveying and storage bins Visible particulate emissions (PE) from the baghouse stack shall not exceed 0% opacity, as a 6-minute average. **<u>Stacks SV18, SV19 and SV20</u>** The 3 cartridge filters controlling the

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		second leg conveyor and two storage bins shall achieve an outlet emission rate of not greater than 0.004 gr PM10/dscf 0.54 ton PM10 per rolling, 12-month period from second leg conveyor and two storage bins Visible particulate emissions (PE) from the three stacks controlling the second leg conveyor and two storage bins shall not exceed 0% opacity, as a 6-minute average. **<u>Fugitive Emissions</u>** 1.80 tons fugitive PM10 per rolling, 12-month period Visible fugitive PE shall not exceed 5% opacity, as a 3-minute average from truck unloading Visible fugitive PE shall not exceed 0% opacity, as a 3-minute average from any grain handling operation See b)(2)a. and c)(1).
b.	OAC rule 3745-31-05(A)(3), as effective 6/30/08	0.49 ton fugitive and stack PM10 emissions combined per month averaged over a 12-month rolling period See b)(2)b.
c.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective 6/30/08	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PM10 emissions from this air contaminant source since the potential to emit is less than 10 tons/year 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.
h.	40 CFR Part 60, Subpart DD	See b)(2)f., b)(2)g. and b)(2)h.

(2) Additional Terms and Conditions

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

i. 0.004 gr PM10/dscf;

ii. 3.52 tons PM10 per rolling, 12-month period;

iii. Visible PE from the baghouse stack shall not exceed 0% opacity, as a 6-minute average;

iv. 0.54 ton PM10 per rolling, 12-month period;

v. Visible particulate emissions (PE) from the three stacks controlling the second leg conveyor and two storage bins shall not exceed 0% opacity, as a 6-minute average.

vi. 1.80 tons fugitive PM10 per rolling, 12-month period;

vii. Visible fugitive PE shall not exceed 5% opacity, as a 3-minute average from truck or rail loading; and

viii. Visible fugitive PE shall not exceed 0% opacity, as a 3-minute average from any grain handling operation.

b. This BAT emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).

c. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.

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 these rules are less stringent than the emissions limitations established pursuant to OAC rule 3745-31-05(D).

g. No owner or operator subject to the provisions of 40 CFR, Part 60, Subpart DD shall cause to be discharged into the atmosphere from any affected facility any process emission which:

i. Contains particulate matter in excess of 0.023 g/dscm (0.01 gr/dscf); and

ii. Exhibits greater than 0 percent opacity.

h. No owner or operator subject to the provisions of 40 CFR, Part 60, Subpart DD shall cause to be discharged into the atmosphere any fugitive emission from:

i. Any grain handling operation which exhibits greater than 0 percent opacity;

ii. Any individual truck unloading station, railcar unloading station, or railcar loading station, which exhibits greater than 5 percent opacity.

c) Operational Restrictions

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

a. the use of a partial enclosure for grain receiving;

b. the use of a total enclosure for transferring/conveying and storage;

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

d. the use of cartridge filters achieving a maximum outlet concentration of 0.004 gr/dscf for PM10; and

e. The maximum annual grain throughput rate for this emissions unit shall not exceed 856,800 tons, based upon a rolling, 12-month summation of the throughput rates.

Month(s)	Maximum Allowable Cumulative Throughput (tons)
1 – 6	428,400
1 – 12	856,800

After the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, compliance with the annual throughput rate limitation shall be based upon a rolling, 12-month summation of the throughput rates.

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 and the cartridge filter 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 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 following information:

a. the grain throughput rate for each month;

b. during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall record the cumulative throughput rate for each calendar month; and

c. beginning after the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the rolling, 12-month summation of the throughput rates.

e) Reporting Requirements

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

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

i. all exceedances of the rolling, 12-month limitation of the grain throughput for this emissions unit in c)(1)e.; and for the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, all exceedances of the maximum allowable grain throughput;

ii. all days during which any visible particulate emissions were observed from the stack(s) serving this emissions unit;

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

iv. all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit; and

v. any corrective actions taken to minimize or eliminate the visible particulate emissions from the stack and/or visible emissions of fugitive dust.

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

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

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

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

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

(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 Limitations</u>:

0.004 gr PM10/dscf of exhaust gas; 3.52 tons PM10 per rolling, 12-month period

Applicable Compliance Method:

Compliance with the outlet concentration of 0.004 gr/dscf of PM10 was demonstrated through emission testing conducted on June 9, 2008. 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 rolling, 12-month period 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 (23,450 cfm) x 60 min/hour x 8760 hours/yr x ton/2000 lbs.

Therefore, provided compliance is shown with the 0.004 gr PM10/dscf and the volumetric air flow rate, compliance with the rolling, 12-month PM10 limitation shall be demonstrated.

b. Emission Limitation:

Visible PE from the baghouse stack shall not exceed 0% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be determined in accordance with Method 9 of 40 CFR, Part 60, Appendix A.

c. Emission Limitation:

0.004 gr PM10/dscf of exhaust gas; 0.54 ton PM10 per rolling, 12-month period

Applicable Compliance Method:

Compliance with the rolling, 12-month period emission limitation shall be demonstrated based on the baghouse outlet grain loading and the maximum volumetric flow rate as follows:

PM10 (tons/yr) = cartridge filter grain loading (0.004 gr/dscf) x 1 lb/7000 gr x maximum volumetric flow rate of the baghouse (3,600 cfm) x 60 min/hour x 8760 hours/yr x ton/2000 lbs.

Therefore, provided compliance is shown with the 0.004 gr PM10/dscf and the volumetric air flow rate, compliance with the rolling, 12-month PM10 limitation shall be demonstrated.

d. Emission Limitation:

Visible PE from the three stacks controlling the second leg conveyor and two storage bins shall not exceed 0% opacity, as a 6-minute average.

Applicable Compliance Method:

If required, compliance shall be determined in accordance with Method 9 of 40 CFR, Part 60, Appendix A

e. Emission Limitation:

1.80 ton fugitive PM10 per rolling, 12-month period

Applicable Compliance Method:

The emission limitation above was determined by multiplying the maximum grain throughput restriction of 856,800 tons/yr by the emission factor of 0.021 lb PM10/ton (based on the average of straight truck and hopper truck emission factors) from AP-42, Section 9.9.1 (4/03) and an 80% capture efficiency (1-0.8), then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the rolling, 12-month throughput restriction, compliance with the emission limitation above shall also be demonstrated.

f. Emission Limitation:

Visible fugitive PE shall not exceed 5% opacity, as a three-minute average from any truck or rail unloading.

Applicable Compliance Method:

If required, compliance with the visible emission limitation shall be determined in accordance with Method 9 of 40 CFR, Part 60, Appendix A and the applicable modifications listed in OAC rule 3745-17-03(B)(3).

g. Emission Limitation:

Visible fugitive PE shall not exceed 0% opacity, as a three-minute average from any grain handling operations.

Applicable Compliance Method:

If required, compliance with the visible emission limitation shall be determined in accordance with Method 9 of 40 CFR, Part 60, Appendix A and the applicable modifications listed in OAC rule 3745-17-03(B)(3).

h. Emission Limitation:

0.49 ton fugitive and stack emissions combined PM10 per month averaged over a 12-month rolling period

Applicable Compliance Method:

The emission limitation above represents the potential to emit for this emission unit and was calculated by combining the annual stack and fugitive emissions as follows:

Fugitive emissions = 856,800 tons/yr x 0.021 lb PM10/ton x 0.0005 ton/lb x 0.2 (80% capture efficiency) = 1.80 tons/yr

Stack emissions = baghouse grain loading (0.004 gr/dscf) x 1 lb/7000 gr x maximum volumetric flow rate of the baghouse (23,450 cfm) x 60 min/hour x 8760 hours/yr x ton/2000 lbs = 3.52 tons/yr

cartridge filter grain loading (0.004 gr/dscf) x 1lb/7000 gr x maximum volumetric flow rate of the filter (3600 cfm) x 60 min/hour x 8760 hours/yr x ton/2000 lbs =0.54 ton/yr

1.80 tons/yr + 3.52 tons/yr + 0.54 ton/yr= 5.86 tons/yr / 12 months/yr = 0.49 ton per month

Therefore, provided compliance is shown with the rolling, 12-month throughput restriction and the 0.004 gr PM10/dscf at the baghouse and cartridge filter, compliance with the emission limitation above shall also be demonstrated.

i. Emissions Limitation:

No owner or operator subject to the provisions of 40 CFR, Part 60, Subpart DD shall cause to be discharged into the atmosphere from any affected facility any process emission which: Contains particulate matter in excess of 0.023 g/dscm (0.01 gr/dscf)

Applicable Compliance Method:

Compliance with the emission limitation listed above shall be demonstrated in accordance with Methods 1-5 of 40 CFR, Part 60, Appendix A and the procedures specified in 40 CFR, Part 60, Subpart DD [See f)(2)].

j. Emissions Limitation:

No owner or operator subject to the provisions of 40 CFR, Part 60, Subpart DD shall cause to be discharged into the atmosphere from any affected facility any process emission which: Exhibits greater than 0 percent opacity.

Applicable Compliance Method:

Compliance with the visible emission limitation listed above shall be demonstrated in accordance with Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in 40 CFR, Part 60, Subpart DD [See f)(2)].

k. Emission Limitations:

No owner or operator subject to the provisions of 40 CFR, Part 60, Subpart DD shall cause to be discharged into the atmosphere any fugitive emission from: Any grain handling operation which exhibits greater than 0 percent opacity and any individual truck unloading station, railcar unloading station, or railcar loading station, which exhibits greater than 5 percent opacity.

Applicable Compliance Method:

Compliance with the visible emission limitation listed above shall be demonstrated in accordance with Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in 40 CFR, Part 60, Subpart DD [See f)(2)].

(2) The permittee shall conduct, or have conducted, emission testing for all of the affected facilities associated with this emissions unit that are subject to 40 CFR, Part 60, Subpart DD.

a. Testing shall be conducted in accordance with the provisions of 40 CFR, Part 60, Subpart A, section 60.8 and 40 CFR, Part 60, Subpart DD, section 60.303.

b. The emission testing shall be conducted within 60 days after achieving the maximum production rate at which the affected facility will be operated, by no later than 180 days after initial startup of such facility and at such other times as may be required by the Ohio Environmental Protection Agency, Division of Air Pollution Control.

c. The emission testing shall be conducted to demonstrate compliance with the following emission limitations:

i. No owner or operator subject to the provisions of 40 CFR, Part 60, Subpart DD shall cause to be discharged into the atmosphere from any affected facility any process emission which:

(a) Contains particulate matter in excess of 0.023 g/dscm (0.01 gr/dscf); and

(b) Exhibits greater than 0 percent opacity.

ii. No owner or operator subject to the provisions of 40 CFR, Part 60, Subpart DD shall cause to be discharged into the atmosphere any fugitive emission from:

(a) Any grain handling operation which exhibits greater than 0 percent opacity; and

(b) any individual truck unloading station, railcar unloading station, or railcar loading station, which exhibits greater than 5 percent opacity.

d. The permittee shall determine compliance with the particulate matter standards in 40 CFR 60.302 [See f)(2)c. for emission limitations] as follows:

i. Method 5 of 40 CFR, Part 60, Appendix A shall be used to determine the particulate matter concentration and the volumetric flow rate of the effluent gas. The sampling time and sample volume for each run shall be at least 60 minutes and 1.70 dscm (60 dscf). The probe and filter holder shall be operated without heaters.

ii. Method 2 shall be used to determine ventilation volumetric flow rate.

iii. Method 9 and the procedures in 40 CFR 60.11 shall be used to determine opacity.

e. During the emissions testing, the emissions unit shall be operated under operational conditions approved in advance by the appropriate Ohio EPA District Office or local air agency. Operational conditions that may need to be approved include, but are not limited to, the production rate, the type of material processed, material make-up (solvent content, etc.), or control equipment operational limitations (burner temperature, precipitator voltage, etc.). In general, testing shall be done under “worst case” conditions expected during the life of the permit. As part of the information provided in the “Intent to Test” notification form described below, the permittee shall provide a description of the emissions unit operational conditions they will meet during the emissions testing and describe why they believe “worst case” operating conditions will be met. Prior to conducting the test(s), the permittee shall confirm with the appropriate Ohio EPA District Office or local air agency that the proposed operating conditions constitute “worst case”. Failure to test under the approved conditions may result in Ohio EPA not accepting the test results as a demonstration of compliance.

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

g. Personnel from the appropriate Ohio EPA District Office or local air agency 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.

h. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency 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 appropriate Ohio EPA District Office or local air agency.

g) Miscellaneous Requirements

(1) None.

6. P902, DDGS loadout

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. b)(1)a., b)(2)a., c)(1), d)(1), e)(1), f)(1)a. and f)(1)b.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)	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 per rolling, 12-month period 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 6/30/08	0.27 ton fugitive and stack PM10 emissions combined per month averaged over a 12-month rolling period See b)(2)b.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective 6/30/08	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PM10 emissions from this air contaminant source since the potential to emit is less than 10 tons/year See b)(2)c.
d.	OAC rule 3745-17-07(B)	See b)(2)d.
e.	OAC rule 3745-17-08(B)	See b)(2)e.
f.	OAC rule 3745-17-07(A)	See b)(2)f.
g.	OAC rule 3745-17-11(B)	See b)(2)f.

(2) Additional Terms and Conditions

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

i. 0.004 gr PM10/dscf and 1.50 tons PM10 per rolling 12-month period*; and

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. This BAT emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).

c. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.

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 these rules are less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D).

c) Operational Restrictions

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

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

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 submit quarterly deviation (excursion) reports that identify:

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

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

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

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

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

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

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

The quarterly reports shall be submitted each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been

established and approved by the Director (the appropriate District Office or local air agency)

(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 tons PM10 per rolling, 12-month period.

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 rolling, 12-month PM10 emission limitation shall be demonstrated based on the baghouse outlet grain loading and the maximum volumetric flow rate as follows:

PM10 emission limitation = 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/2000 lbs

Therefore, provided compliance is shown with the 0.004 gr/dscf and the volumetric air flow rate is verified through testing, compliance with the rolling, 12-month PM10 limitation shall 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 with the visible emission limitation shall be determined in accordance with Method 9 of 40 CFR, Part 60, Appendix A.

c. Emission Limitation:

0.27 ton fugitive and stack emissions combined PM10 per month averaged over a 12-month rolling period.

Applicable Compliance Method:

The emission limitation above represents the potential to emit for this emission unit and was calculated by combining the annual stack and fugitive emissions as follows:

Fugitive emissions = 238,190 tons/yr x 0.029 lb PM10/ton x 0.0005 ton/lb x 0.5 (50% capture efficiency) = 1.73 tons/yr

Stack emissions = 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/2000 lbs = 1.50 tons/yr

1.73 tons/yr + 1.50 tons/yr = 3.23 tons/yr / 12 months/yr = 0.27 ton per month

Therefore, provided compliance is shown with the 0.004 gr PM10/dscf, compliance with the emission limitation above shall also be demonstrated.

g) Miscellaneous Requirements

(1) None.

7. T001, 190 ethanol tank

Operations, Property and/or Equipment Description:

250,000 gallon storage tank (190 proof ethanol 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. b)(1)a., b)(2)a., c)(1), d)(10), e)(1) and f)(1)a.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)	0.38 ton volatile organic compound (VOC) per rolling, 12-month period 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 6/30/08	0.03 ton VOC per month averaged over a 12-month rolling period See b)(2)o.
e.	OAC rule 3745-31-05 (A)(3)(a)(ii), as effective 6/30/08	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the potential to emit is less than 10 tons/year. See b)(2)p.

(2) Additional Terms and Conditions

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

i. 0.38 ton VOC per rolling, 12-month period.

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. This BAT emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).

p. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.

c) Operational Restrictions

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

a. use of an internal floating roof; and

b. The maximum annual throughput rate for this emissions unit shall not exceed 86,000,000 gallons, based upon a rolling, 12-month summation of the throughput rates.

Month(s)	Maximum Allowable Cumulative Throughput (gallons)
1 – 6	43 million
1 – 12	86 million

After the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, compliance with the annual throughput rate limitation shall be based upon a rolling, 12-month summation of the throughput rates.

(2) The maximum true vapor pressure of organic liquid stored in this storage tank shall not exceed 0.86 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 0.86 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 following information:

a. the throughput rate for each month;

b. during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall record the cumulative throughput rate for each calendar month; and

c. beginning after the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the rolling, 12-month summation of the throughput rates.

e) Reporting Requirements

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

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

i. all exceedances of the rolling, 12-month limitation of the material throughput, in gallons, for this emissions unit in c)(1)b.; and for the first 12 calendar months of operation or the first 12 calendar months following the

issuance of this permit, all exceedances of the maximum allowable material throughput, in gallons; and

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

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

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

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

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

(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 0.86 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

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:

0.38 ton VOC per rolling, 12-month period

Applicable Compliance Method:

The permittee shall demonstrate compliance with the rolling, 12-month 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. Therefore, provided compliance is shown with the maximum annual throughput restriction, compliance with the rolling, 12-month limitation shall also be demonstrated.

b. Emission Limitation:

0.03 ton VOC per month averaged over a 12-month rolling period

Applicable Compliance Method:

The emission limitation above was determined 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 throughput of 86,000,000 gallons and dividing by yr/12 months

g) Miscellaneous Requirements

(1) None.

8. T002, denaturant tank

Operations, Property and/or Equipment Description:

250,000 gallon storage tank (denaturant)

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. b)(1)a., b)(2)a., c)(1), d)(10), e)(1) and f)(1)a.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)	1.03 ton volatile organic compound (VOC) per rolling, 12-month period 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 6/30/08	0.09 ton VOC per month averaged over a 12-month rolling period See b)(2)o.
e.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective 6/30/08	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the potential to emit is less than 10 tons/year See b)(2)p.

(2) Additional Terms and Conditions

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

i. 1.03 ton VOC per rolling, 12-month period.

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. This BAT emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).

p. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.

c) Operational Restrictions

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

a. use of an internal floating roof;

b. use of a ventless delivery system for unloading of gasoline; and

c. The maximum annual throughput rate for this emissions unit shall not exceed 6,256,500 gallons, based upon a rolling, 12-month summation of the throughput rates.

Month(s)	Maximum Allowable Cumulative Throughput (gallons)
1 – 6	3,128,250
1 – 12	6,256,500

After the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, compliance with the annual throughput rate limitation shall be based upon a rolling, 12-month summation of the throughput rates.

(2) The maximum true vapor pressure of organic liquid stored in this storage tank shall not exceed 9.26 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 9.26 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 following information:

a. the throughput rate for each month;

b. during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall record the cumulative throughput rate for each calendar month; and

c. beginning after the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the rolling, 12-month summation of the throughput rates.

e) Reporting Requirements

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

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

i. all exceedances of the rolling, 12-month limitation of the material throughput, in gallons, for this emissions unit in c)(1)c.; and for the first 12 calendar months of operation or the first 12 calendar months following the

issuance of this permit, all exceedances of the maximum allowable material throughput, in gallons; and

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

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

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

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

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

(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 9.26 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.

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:

1.03 ton VOC per rolling, 12-month period

Applicable Compliance Method:

The permittee shall demonstrate compliance with the rolling, 12-month 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 6,256,500 gallons. Therefore, provided compliance is shown with the maximum annual throughput restriction, compliance with the rolling, 12-month limitation shall also be demonstrated.

b. Emission Limitation:

0.09 ton VOC per month averaged over a 12-month rolling period

Applicable Compliance Method:

The emission limitation above was determined 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 throughput of 6,256,500 gallons and dividing by yr/12 months.

g) Miscellaneous Requirements

(1) None.

9. T003, 200 ethanol tank

Operations, Property and/or Equipment Description:

2 million gallon storage tank (200 proof ethanol)

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. b)(1)a., b)(2)a., c)(1), d)(10), e)(1) and f)(1)a.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 375-31-05(D)	0.25 ton VOC per rolling, 12-month period 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 6/30/08	0.02 ton VOC per month averaged over a 12-month rolling period See b)(2)o.
e.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective 6/30/08	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the potential to emit is less than 10 tons/year See b)(2)p.

(2) Additional Terms and Conditions

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

i. 0.25 ton VOC per rolling, 12-month period.

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. This BAT emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).

p. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.

c) Operational Restrictions

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

a. use of an internal floating roof; and

b. The maximum annual throughput rate for this emissions unit shall not exceed 81,700,000 gallons, based upon a rolling, 12-month summation of the throughput rates.

Month(s)	Maximum Allowable Cumulative Throughput (gallons)
1 – 6	40.8 million
1 – 12	81.7 million

After the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, compliance with the annual throughput rate limitation shall be based upon a rolling, 12-month summation of the throughput rates.

(2) The maximum true vapor pressure of organic liquid stored in this storage tank shall not exceed 0.86 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 0.86 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 following information:

a. the throughput rate for each month;

b. during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall record the cumulative throughput rate for each calendar month; and

c. beginning after the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the rolling, 12-month summation of the throughput rates.

e) Reporting Requirements

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

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

i. all exceedances of the rolling, 12-month limitation of the material throughput, in gallons, for this emissions unit in c)(1)b.; and for the first 12 calendar months of operation or the first 12 calendar months following the

issuance of this permit, all exceedances of the maximum allowable material throughput, in gallons; and

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

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

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

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

The quarterly reports shall be submitted each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the appropriate

(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 0.86 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.

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:

0.25 ton VOC per rolling, 12-month period

Applicable Compliance Method:

The permittee shall demonstrate compliance with the rolling 12-month 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 81,700,000 gallons. Therefore, provided compliance is shown with the maximum annual throughput restriction, compliance with the rolling, 12-month emission limitation shall also be demonstrated.

b. Emission Limitation:

0.02 ton VOC per month averaged over a 12-month rolling period

Applicable Compliance Method:

The emission limitation above was determined 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 throughput of 81,700,000 gallons and dividing by yr/12 months.

g) Miscellaneous Requirements

(1) None.

10. T004, 200 ethanol tank

Operations, Property and/or Equipment Description:

2 million gallon storage tank (200 proof ethanol)

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. b)(1)a., b)(2)a., c)(1), d)(10), e)(1) and f)(1)a.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)	0.25 ton volatile organic compound (VOC) per rolling, 12-month period 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 6/30/08	0.02 ton VOC per month averaged over a 12-month rolling period See b)(2)o.
e.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective 6/30/08	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the potential to emit is less than 10 tons/year See b)(2)p.

(2) Additional Terms and Conditions

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

i. 0.25 ton VOCper rolling 12-month period.

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. This BAT emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).

p. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.

c) Operational Restrictions

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

a. use of an internal floating roof; and

b. The maximum annual throughput rate for this emissions unit shall not exceed 81,700,000 gallons, based upon a rolling, 12-month summation of the throughput rates.

Month(s)	Maximum Allowable Cumulative Throughput (gallons)
1 – 6	40.8 million
1 – 12	81.7 million

After the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, compliance with the annual throughput rate limitation shall be based upon a rolling, 12-month summation of the throughput rates.

(2) The maximum true vapor pressure of organic liquid stored in this storage tank shall not exceed 0.86 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 0.86 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 following information:

a. the throughput rate for each month;

b. during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall record the cumulative throughput rate for each calendar month; and

c. beginning after the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the rolling, 12-month summation of the throughput rates.

e) Reporting Requirements

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

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

i. all exceedances of the rolling, 12-month limitation of the material throughput, in gallons, for this emissions unit in c)(1)b.; and for the first 12 calendar months of operation or the first 12 calendar months following the

issuance of this permit, all exceedances of the maximum allowable material throughput, in gallons; and

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

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

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

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

The quarterly reports shall be submitted each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the appropriate

(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 0.86 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.

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:

0.25 ton VOC per rolling, 12-month period

Applicable Compliance Method:

The permittee shall demonstrate compliance with the rolling-12 month 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 81,700,000 gallons. Therefore, provided compliance is shown with the maximum annual throughput restriction, compliance with the rolling, 12-month limitation shall also be demonstrated.

b. Emission Limitation:

0.02 ton VOC per month averaged over a 12-month rolling period

Applicable Compliance Method:

The emission limitation above was determined 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 throughput of 81,700,000 gallons and dividing by yr/12 months.

g) Miscellaneous Requirements

(1) None.

11. T005, denaturant tank

Operations, Property and/or Equipment Description:

126,900 gallon storage tank (denaturant)

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. b)(1)a., b)(2)a., c)(1), d)(10), e)(1) and f)(1)a.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)	0.83 ton volatile organic compound (VOC) per rolling, 12-month period 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 6/30/08	0.07 ton VOC per month averaged over a 12-month rolling period See b)(2)o.
e.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective 6/30/08	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the potential to emit is less than 10 tons/year See b)(2)p.

(2) Additional Terms and Conditions

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

i. 0.83 ton VOC per rolling, 12-month period.

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. This BAT emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).

p. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.

c) Operational Restrictions

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

a. use of an internal floating roof; and

b. The maximum annual throughput rate for this emissions unit shall not exceed 6,256,500 gallons, based upon a rolling, 12-month summation of the throughput rates.

Month(s)	Maximum Allowable Cumulative Throughput (gallons)
1 – 6	3,128,250
1 – 12	6,256,500

After the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, compliance with the annual throughput rate limitation shall be based upon a rolling, 12-month summation of the throughput rates.

(2) The maximum true vapor pressure of organic liquid stored in this storage tank shall not exceed 9.26 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 9.26 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 following information:

a. the throughput rate for each month;

b. during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall record the cumulative throughput rate for each calendar month; and

c. beginning after the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the rolling, 12-month summation of the throughput rates.

e) Reporting Requirements

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

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

i. all exceedances of the rolling, 12-month limitation of the material throughput, in gallons, for this emissions unit in c)(1)b.; and for the first 12 calendar months of operation or the first 12 calendar months following the

issuance of this permit, all exceedances of the maximum allowable material throughput, in gallons; and

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

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

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

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

The quarterly reports shall be submitted each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the appropriate

(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 9.26 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.

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:

0.83 ton VOC per rolling, 12-month period

Applicable Compliance Method:

The permittee shall demonstrate compliance with the rolling 12-month 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 6,256,500 gallons. Therefore, provided compliance is shown with the maximum annual throughput restriction, compliance with the rolling, 12-month limitation shall also be demonstrated.

b. Emission Limitation:

0.07 ton VOC per month averaged over a 12-month rolling period

Applicable Compliance Method:

The emission limitation above was determined 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 throughput of 6,256,500 gallons and dividing by yr/12 months.

g) Miscellaneous Requirements

(1) None.

12. Emissions Unit Group -Dryers: P008,P009,

EU ID	Operations, Property and/or Equipment Description
P008	dryer no. 1 (60 mmBtu/hr natural gas fired) controlled with a regenerative thermal oxidizer
P009	dryer no. 2 (60 mmBtu/hr natural gas fired) controlled with a regenerative thermal oxidizer

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)g., d)(5) through d)(9) 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. b)(1)a., b)(2)a., c)(1), d)(1), d)(2), d)(3), d)(4), e)(1) and f)(1)a. through f)(1)e.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)	**<u>Emission Limitations during normal operations</u>** Carbon monoxide (CO) emissions from P007, P008 and P009 combined, shall not exceed 10.5 lbs/hr and 45.99 tons per rolling, 12-month period; Particulate matter equal to or less than 10 microns in size (PM10), from emissions units P007, P008 and P009 combined, shall not exceed 10.0 lbs/hr and 43.8 tons per rolling, 12-month period [See b)(2)b.]; Volatile organic compound (VOC) emissions from P007, P008 and P009 combined shall not exceed 11.26 lbs/hr and 49.32 tons per rolling, 12-month

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		period; Nitrogen oxides (NOx) emissions from emissions units P007, P008 and P009 combined shall not exceed 11.0 lbs/hr and 48.2 tons per rolling, 12-month period; and Visible particulate emissions (PE) from the stack(s) serving this emissions unit shall not exceed 5% opacity, as a six-minute average. **Emission Limitations during downtime of the scrubber** VOC emissions shall not exceed 45.66 lbs/hr and 2.28 tons per rolling, 12-month period; CO emissions shall not exceed 10.5 lbs/hr and 0.53 tons per rolling, 12-month period; NOx emissions shall not exceed 11.0 lbs/hr and 0.55 tons per rolling, 12-month period; PM10 emissions shall not exceed 10 lbs/hr and 0.5 ton per rolling, 12-month period [See b)(2)b.] Visible PE from the stack(s) serving this emissions unit shall not exceed 5% opacity, as a six-minute average during scrubber downtime operations. See b)(2)a. and c)(1).
b.	ORC rule 3704.03(T)	See b)(2)g.
c.	OAC rule 3745-31-05(A)(3), as effective 6/30/08	See b)(2)c. and b)(2)d.
d.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective 6/30/08	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the SO2 emissions from this air contaminant source since the potential to emit is less than 10 tons/year. See b)(2)e.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
e.	OAC rule 3745-17-07(A)	See b)(2)f.
f.	OAC rule 3745-17-11(B)	See b)(2)f.
g.	OAC rule 3745-114-01 ORC 3704.03(F)	See d)(5) through d)(9) and e)(2).

(2) Additional Terms and Conditions

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

i. 10.5 lbs/hr and 45.99 tons CO per rolling, 12-month period from P007, P008 and P009 combined during normal operations;

ii. 10.0 lbs/hr PM10 and 43.8 tons PM10 per rolling, 12-month periodfrom P007, P008 and P009 combined during normal operations;

iii. 11.26 lbs/hr and 49.32 tons VOC per rolling, 12-month period from P007, P008 and P009 combined during normal operations;

iv. 11.0 lbs/hr and 48.2 tons NOx per rolling, 12-month period from P007, P008 and P009 combined during normal operations;

v. visible PE shall not exceed 5% opacity, as a six-minute average during normal operations;

vi. 45.66 lbs/hr and 2.28 tons VOC per rolling, 12-month period for scrubber downtime operations;

vii. 10.5 lbs/hr and 0.53 tons CO per rolling, 12-month period for scrubber downtime operations;

viii. 11.0 lbs/hr and 0.55 ton NOx per rolling, 12-month period for scrubber downtime operations;

ix. 10 lbs/hr and 0.5 ton PM10 per rolling, 12-month period for scrubber downtime operations; and

x. Visible PE from the stack(s) serving this emissions unit shall not exceed 5% opacity, as a six-minute average during scrubber downtime operations.

b. All emissions of particulate matter are PM10.

c. 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 6/30/08, have not been established in this permit.

d. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.

e. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.

f. The emission limitation specified by these rules are less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D).

g. The BAT requirements for PM10, CO, NOx and VOC emissions under this rule have been determined to be compliance with the tons per rolling, 12-month period emission limitations in OAC rule 3745-31-05(D)

c) Operational Restrictions

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

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

b. firing only natural gas in the RTO.

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

c. During the down time of the scrubber, while this emissions unit continues to operate, the maximum annual operating hours for this emissions unit shall not exceed 100, based upon a rolling, 12-month summation of the operating hours. The permittee shall schedule and perform the activities to correspond to other shut down maintenance activities.

To ensure enforceability during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall not exceed the operating hours levels specified in the following table:

Month(s)	Maximum Allowable Cumulative Operating Hours
1 - 3	100
1 – 6	100
1 – 9	100
1 – 12	100

After the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, compliance with the annual operating hours limitation shall be based upon a rolling, 12-month summation of the operating hours.

(2) The permittee shall shut down these emissions units when the RTO experiences an unscheduled shutdown.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain monthly records of the following information during the down time of the scrubber, while this emissions unit continues to operate:

a. the operating hours for each month;

b. during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall record the cumulative operating hours for each calendar month; and

c. beginning after the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the rolling, 12-month summation of the operating hours.

(2) 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.

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 an administrative modification.

(3) 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.

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

(5) The initial PTI application(s) [PTI 03-17156 issued 12/5/2006] for this/these emissions unit(s), B001, B002, J001, P007, P008, P009 and P010, were 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 this/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): 4.5
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 85.16
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): 0.40
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1.14
MAGLC (ug/m3): 6.47

The permittee, has demonstrated that emissions of hexane, formaldehyde, and acetaldehyde, from emissions unit(s) B001, B002, J001, P007, P008, P009, and P010, are each 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.

(9) Modeling to demonstrate compliance with, the “Toxic Air Contaminant Statute”, ORC 3704.03(F)(4)(b), was not necessary because the increase in the emissions unit’s maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires a

permittee to apply for and obtain a new or modified federally enforceable permit to install and operate (FEPTIO) prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new FEPTIO.

e) Reporting Requirements

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

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

i. all exceedances of the rolling, 12-month limitation on the hours of operation for this emissions unit in c)(1)c..; and for the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, all exceedances of the maximum allowable cumulative hours of operation;

ii. each period of time (start time and date, and end time and date) when the average combustion temperature within the thermal oxidizer was outside of the acceptable range;

iii. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the thermal oxidizer;

iv. any period of time (start time and date, and end time and date) when the emissions unit(s) was burning any other fuel than natural gas

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

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

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

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

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

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

10.5 lbs/hr and 45.99 tons CO per rolling, 12-month period during normal operations;

10.0 lbs/hr and 43.8 tons PM10 per rolling, 12-month period during normal operations;

11.26 lbs/hr and 49.32 VOC tons per rolling, 12-month period during normal operations;

11.0 lbs/hr and 48.2 tons NOx per rolling, 12-month period during normal operations; and

<u>Applicable Compliance Method:</u>

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 1–4 of 40 CFR, Part 60, Appendix A and 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 rolling, 12-month emission limitations were developed by multiplying the respective hourly emission limitations by the maximum operating schedule of 8760 hours/year for normal operations, 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:

45.66 lbs/hr and 2.28 tons VOC per rolling, 12-month period during downtime of the scrubber for emissions units P007, P008 and P009 combined;

10.5 lbs/hr and 0.53 tons CO per rolling, 12-month period during downtime of the scrubber for emissions units P007, P008 and P009 combined;

11.0 lbs NOx/hr and 0.55 ton NOx per rolling, 12-month period during downtime of the scrubber for emissions units P007, P008 and P009 combined; and

10.0 lbs/hr and 0.5 ton PM10 per rolling, 12-month period during downtime of the scrubber for emissions units P007, P008 and P009 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 1–4 of 40 CFR, Part 60, Appendix A and 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 rolling, 12-month emission limitations above were developed by multiplying the respective hourly emission limitations by the maximum operating schedule of 100 hours for scrubber downtime then dividing by 2000 lbs/ton. Therefore, if compliance is shown with the hourly limitations, compliance with the annual limitations shall also be demonstrated.

c. Emission Limitation:

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

Appliance Compliance Method:

If required, compliance with emission limitation above shall be determined in accordance with Method 9 of 40 CFR, Part 60, Appendix A.

d. Emission Limitation:

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

Appliance Compliance Method:

If required, compliance with emission limitation above shall be determined in accordance with Method 9 of 40 CFR, Part 60, Appendix A.

e. 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 was demonstrated based on the results of emission testing conducted on 12/08/2011 in accordance with the methods outlined in Section f)(1) of emissions unit P007 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.