Ohio Environmental Protection Agency

Ted Strickland, Governor
Lee Fisher, Lt. Governor
Chris Korleski, Director

Certified Mail

7/9/2010

Yes	TOXIC REVIEW
No	PSD
Yes	SYNTHETIC MINOR TO AVOID MAJOR NSR
Yes	CEMS
No	MACT
Yes	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED
Yes	SYNTHETIC MINOR TO AVOID TITLE V
Yes	FEDERALLY ENFORCABLE PTIO (FEPTIO)

Stacy Schmidt
Andersons Marathon Ethanol LLC
PO Box 119
Maumee, OH 43537

RE: DRAFT AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE
Facility ID: 0819750245
Permit Number: P0104717
Permit Type: Renewal
County: Darke

Dear Permit Holder:

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

Andrew Hall
Permit Review/Development Section
Ohio EPA, DAPC
122 South Front Street
Columbus, Ohio 43215

and

Regional Air Pollution Control Agency
117 South Main Street
Dayton, OH 45422-1280

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published in the newspaper. You will be notified in writing if a public hearing is scheduled. A decision on issuing a final permit-to-install will be made after consideration of comments received and oral testimony if a public hearing is conducted. Any permit fee that will be due upon issuance of a final Permit-to-Install is indicated in the Authorization section. Please do not submit any payment now. If you have any questions, please contact Regional Air Pollution Control Agency at (937)225-4435.

Sincerely,

Michael W. Ahern

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

Cc: U.S. EPA Region 5 *Via E-Mail Notification*
RAPCA; Indiana

50 West Town Street, Suite 700
P.O. Box 1049
Columbus, OH 43216-1049

614 | 644 3020
614 | 644 3184 (fax)
www.epa.ohio.gov

Darke County

PUBLIC NOTICE
Issuance of Draft Air Pollution Permit-To-Install and Operate
Andersons Marathon Ethanol LLC

Issue Date: 7/9/2010
Permit Number: P0104717
Permit Type: Renewal
Permit Description: First issue PTIO for the ethanol plant.
Facility ID: 0819750245
Facility Location: Andersons Marathon Ethanol LLC
5278 SEBRING WARNER RD,
Greenville, OH 45331
Facility Description: All Other Basic Organic Chemical Manufacturing

Chris Korleski, Director of the Ohio Environmental Protection Agency, 50 West Town Street, Columbus Ohio has issued a draft action of an air pollution control, federally enforceable permit-to-install and operate (PTIO) for the facility at the location identified above on the date indicated. Comments concerning this draft action, or a request for a public meeting, must be sent in writing no later than thirty (30) days from the date this notice is published. All comments, questions, requests for permit applications or other pertinent documentation, and correspondence concerning this action must be directed to Michael Maleski at Regional Air Pollution Control Agency, 117 South Main Street, Dayton, OH 45422-1280 or (937)225-4435. The permit can be downloaded from the Web page: www.epa.ohio.gov/dapc

State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Permit Strategy Write-Up

1. Check all that apply:

   _X_ Synthetic Minor Determination

   ___ Netting Determination

2. Source Description:

   The Andersons, Inc., 0819750245, is an ethanol production facility located Darke County. The facility processes corn to manufacture ethanol and distillers grains, which is used as animal feed. Corn is delivered by truck and rail to the facility. It is unloaded and stored in silos. The corn is dried, if necessary, and milled before being processed in the plant. The milled corn is mixed into a slurry and cooked. Afterwards, it is fermented to a slurry containing ethanol. This slurry is further refined through distillation and filtering. The resulting ethanol is denatured with gasoline and stored in tanks. The ethanol product is loaded into railcars or trucks using a loading rack. A byproduct of this process is distillers grains, which is left over from the fermentation process. The grains are dried to various degrees, cooled and sold as animal feed.

3. Facility Emissions and Attainment Status:

   The facility is located in Darke County, which is attainment for all criteria pollutants. Potential uncontrolled facility-wide emissions are presented in Table 1 below.

Table 1 – Uncontrolled Potential Emissions (tons/yr)

Emissions Unit	PE	PM_{10}	SO_2	NO_X	CO	VOC	Single HAP	Total HAP
B001 - Thermal Oxidizer / Waste Heat Recovery Boiler #1	231.12	231.12	95.74	92.86	876.12	462.25	35.30	100.07
B002 - Thermal Oxidizer / Waste Heat Recovery Boiler #2								
P005 - Mash and Yeast Operations								
P007 - Distillation Process								
P008 - DDGS Dryer #1								
P009 - DDGS Dryer #2								
P010 - DDGS Dryer #3								
P011 - DDGS Dryer #4								
P013 - Methanator Flare (emissions vented to DDGS Dryer)								
P902 - DDGS Handling and Cooling (B001/B002 stack only)								
F002 - Grain Drying	66.92	18.35	0.17	28.47	23.91	1.57	---	---
J001 - Denatured Ethanol Truck and Rail Loadout	0.0033	0.0033	0.0026	3.74	20.13	482.93	---	---
P001 - Grain Hammer #1	78.02	78.02	---	---	---	---	---	---
P002 - Grain Hammer #2								
P003 - Grain Hammer #3								
P004 - Grain Hammer #4								
P006 - Fermentation and Beer Well	33.03	17.44	---	---	---	1917.1	306.60	315.09
P012 - Cooling Tower	13.70	13.70	---	---	---	---	---	---
P013 - Methanator Flare	0.0033	0.0033	0.0026	0.15	0.63	0.085	---	---
P014 - Emergency Fire water pump	0.015	0.015	0.098	0.86	0.045	0.023	---	---
P901 - Grain Receiving, Handling and Storage (stack only)	201.61	201.61	---	---	---	---	---	---
P902 - DDGS Handling & Cooling (S70 stack only)	64.60	64.60	---	---	---	10.51	0.63	1.20
P903 - DDGS Loadout to Truck and Rail (stack only)	34.16	34.16	---	---	---	---	---	---
P904 - Four Steel Grain Storage Bins	9.75	2.46	---	---	---	---	---	---
T001 - 190 Proof Ethanol Storage Tank	---	---	---	---	---	0.53	---	---
T002 - 200 Proof Ethanol Storage Tank	---	---	---	---	---	0.53	---	---

T003 - Gasoline Denaturant Storage Tank	---	---	---	---	---	1.29	---	---
T004 - Denatured Ethanol Storage Tank #1	---	---	---	---	---	0.30	---	---
T005 - Denatured Ethanol Storage Tank #2	---	---	---	---	---	0.30	---	---
T006 - Denatured Ethanol Storage Tank #3	---	---	---	---	---	0.30	---	---
Total	732.94	661.49	96.02	126.08	920.84	2877.8	342.53	416.36

Note that the highest single HAP is acetaldehyde.

4. Source Emissions:

   Potential controlled facility-wide emissions are presented Table 2 in Section 5 below.

5. Conclusion:

   Potential controlled facility-wide emissions are presented in Table 2 below:

Table 2 – Controlled Potential Emissions (tons/yr)

Emissions Unit	PE	PM_{10}	SO_2	NO_X	CO	VOC	Single HAP	Total HAP
B001 - Thermal Oxidizer / Waste Heat Recovery Boiler #1	11.56	11.56	95.74	92.86	87.61	23.11	1.76	8.33
B002 - Thermal Oxidizer / Waste Heat Recovery Boiler #2								
P005 - Mash and Yeast Operations								
P007 - Distillation Process								
P008 - DDGS Dryer #1								
P009 - DDGS Dryer #2								
P010 - DDGS Dryer #3								
P011 - DDGS Dryer #4								
P013 - Methanator Flare (emissions vented to DDGS Dryer)								
P902 - DDGS Handling and Cooling (B001/B002 stack only)								
F002 - Grain Drying	10.08	2.69	0.018	3.00	2.52	0.17	---	---
J001 - Denatured Ethanol Truck and Rail Loadout	0.0026	0.0026	0.0026	1.52	8.07	14.39	---	---
P001 - Grain Hammer #1	3.90	3.90	---	---	---	---	---	---
P002 - Grain Hammer #2								
P003 - Grain Hammer #3								
P004 - Grain Hammer #4								
P006 - Fermentation and Beer Well	0.66	0.35	---	---	---	38.34	6.13	6.30
P012 - Cooling Tower	13.70	13.70	---	---	---	---	---	---
P013 - Methanator Flare	0.0033	0.0033	0.0026	0.15	0.63	0.085	---	---
P014 - Emergency Fire water pump	0.015	0.015	0.098	0.86	0.045	0.023	---	---
P901 - Grain Receiving, Handling and Storage (stack only)	10.08	10.08	---	---	---	---	---	---
P902 - DDGS Handling & Cooling (S70 stack only)	3.23	3.23	---	---	---	10.51	0.63	1.20
P903 - DDGS Loadout to Truck and Rail (stack only)	1.71	1.71	---	---	---	---	---	---
P904 - Four Steel Grain Storage Bins	9.75	2.46	---	---	---	---	---	---
T001 - 190 Proof Ethanol Storage Tank	---	---	---	---	---	0.53	---	---
T002 - 200 Proof Ethanol Storage Tank	---	---	---	---	---	0.53	---	---
T003 - Gasoline Denaturant Storage Tank	---	---	---	---	---	1.29	---	---
T004 - Denatured Ethanol Storage Tank #1	---	---	---	---	---	0.30	---	---
T005 - Denatured Ethanol Storage Tank #2	---	---	---	---	---	0.30	---	---
T006 - Denatured Ethanol Storage Tank #3	---	---	---	---	---	0.30	---	---
Total	64.69	49.69	95.86	98.39	98.87	89.88	8.53	15.83

Note that the highest single HAP is acetaldehyde.

The terms and conditions in this FEPTIO will limit the emissions to the values listed in Table 2. This is less than 100 TPY, which is the major source threshold with respect to Title V and New Source Review. Potential emissions have been limited through the use of regenerative thermal oxidizers at 98% control, baghouses at 0.005 gr/dscf grain loading, wet packed bed scrubber at 98% control, flares at 98% control, drift eliminators on the cooling tower, internal floating roofs on tanks, column perforations on the column

dryer, and compliance with applicable OAC rules, emission limitations, monitoring, record keeping and reporting requirements.

6. Please provide additional notes or comments as necessary:

   None

7. Total Permit Allowable Emissions Summary (for informational purposes only):

Pollutant	Tons Per Year
PE	115.65
PM_{10}	59.87
SO_2	95.86
NO_X	98.39
CO	98.87
VOC	98.72
Single HAP	9.9
Total HAP	17.38

Ohio Environmental Protection Agency

DRAFT

Division of Air Pollution Control
Permit-to-Install and Operate
for
Andersons Marathon Ethanol LLC

Facility ID:	0819750245
Permit Number:	P0104717
Permit Type:	Renewal
Issued:	7/9/2010
Effective:	To be entered upon final issuance
Expiration:	To be entered upon final issuance

Ohio Environmental Protection Agency

Division of Air Pollution Control
Permit-to-Install and Operate
for
Andersons Marathon Ethanol LLC

Table of Contents

Authorization

Facility ID: 0819750245
Application Number(s): A0036984, A0037063
Permit Number: P0104717
Permit Description: First issue PTIO for the ethanol plant.
Permit Type: Renewal
Permit Fee: $0.00 *DO NOT send payment at this time, subject to change before final issuance*
Issue Date: 7/9/2010
Effective Date: To be entered upon final issuance
Expiration Date: To be entered upon final issuance
Permit Evaluation Report (PER) Annual Date: To be entered upon final issuance

This document constitutes issuance to:

Andersons Marathon Ethanol LLC
5278 SEBRING WARNER RD
Greenville, OH 45331

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

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

Regional Air Pollution Control Agency
117 South Main Street
Dayton, OH 45422-1280
(937)225-4435

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

Chris Korleski
Director

Authorization (continued)

Permit Number: P0104717
Permit Description: First issue PTIO for the ethanol plant.

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

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

Emissions Unit ID: **F002**
Company Equipment ID: GrainDryer
Superseded Permit Number:
General Permit Category and Type: Not Applicable

Emissions Unit ID: **P006**
Company Equipment ID: Fermentation Units
Superseded Permit Number:
General Permit Category and Type: Not Applicable

Emissions Unit ID: **P012**
Company Equipment ID: CoolingTowers
Superseded Permit Number:
General Permit Category and Type: Not Applicable

Emissions Unit ID: **P013**
Company Equipment ID: Methanators
Superseded Permit Number:
General Permit Category and Type: Not Applicable

Emissions Unit ID: **P014**
Company Equipment ID: EmerFireWaterPump
Superseded Permit Number:
General Permit Category and Type: Not Applicable

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

Emissions Unit ID: **P902**
Company Equipment ID: DDGSHandling&Cooling
Superseded Permit Number:
General Permit Category and Type: Not Applicable

Emissions Unit ID: **P903**
Company Equipment ID: DDGSLoadout
Superseded Permit Number:
General Permit Category and Type: Not Applicable

Emissions Unit ID: **T003**
Company Equipment ID: GasolineDenatTK
Superseded Permit Number:
General Permit Category and Type: Not Applicable

Group Name: **Cook, Yeast, Distill & Dehydrate**

Emissions Unit ID:	**P005**
Company Equipment ID:	Mash & Yeast Opertns
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P007**
Company Equipment ID:	Distillation
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable

Group Name: DDGS Dryers

Emissions Unit ID:	**P008**
Company Equipment ID:	DDGSDryer#1
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P009**
Company Equipment ID:	DDGSDryer#2
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P010**
Company Equipment ID:	DDGSDryer#3
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P011**
Company Equipment ID:	DDGSDryer#4
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable

Group Name: Ethanol Tanks

Emissions Unit ID:	**T001**
Company Equipment ID:	190ProofTK
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**T002**
Company Equipment ID:	200ProofTK
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**T004**
Company Equipment ID:	DenaturedETHTK#1
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**T005**
Company Equipment ID:	DenaturedETHTK#2
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**T006**
Company Equipment ID:	DenaturedETHTK#3
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable

Group Name: Grain Hammermills

Emissions Unit ID:	**P001**
Company Equipment ID:	Hammermill#1
Superseded Permit Number:	

General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P002**
Company Equipment ID:	Hammermill#2
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P003**
Company Equipment ID:	Hammermill#3
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P004**
Company Equipment ID:	Hammermill#4
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable

Group Name: TO / Waste Heat Recovery Boilers

Emissions Unit ID:	**B001**
Company Equipment ID:	122 MMBtu/hr WHRB1
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**B002**
Company Equipment ID:	122 mmBtu/hr WHRB2
Superseded Permit Number:	
General Permit Category and Type:	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. Unless otherwise specified, facilities subject to one or more synthetic minor restrictions must use Ohio EPA's "Air Services" to submit annual emissions associated with this permit requirement. 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 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 Regional Air Pollution Control Agency 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[1] 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 emissions 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

[1] Permittees that use Ohio EPA's "Air Services" can mark the affected emissions unit(s) as "permanently shutdown" in the facility profile along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update will constitute notifying of the permanent shutdown of the affected emissions unit(s).

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 being permanently shut down without first applying for and obtaining a permit pursuant to 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.

C. Emissions Unit Terms and Conditions

1. F001, Roadways

Operations, Property and/or Equipment Description:

Paved Roadways and Parking Areas

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

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

a. None.

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

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	There shall be no visible particulate emissions (PE) except for one minute during any 60-minute period. PE shall not exceed 48.89 tons per year (TPY). The permittee shall implement best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust. See b)(2)a through b)(2)f.
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	Emissions of particulate matter less than 10 microns in diameter (PM_{10}) shall not exceed 9.52 TPY. See b)(2)k.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-31-05(E), as effective 12/01/06 (synthetic minor to avoid BAT)	PM_{10} emissions shall not exceed 9.52 TPY. See b)(2)g.
d.	OAC rule 3745-17-07(B)	See b)(2)h.
e.	OAC rule 3745-17-08(B)	See b)(2)i.

(2) Additional Terms and Conditions

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

Paved Roadways:

All

Paved Parking Areas:

All

b. The permittee shall employ best available control measures on all paved roadways and parking areas for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permit application, the permittee has committed to treat the paved roadways and parking areas by sweeping and/or watering at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

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

d. The permittee shall promptly remove, in such a manner as to minimize or prevent resuspension, earth and/or other material from paved streets onto which such material has been deposited by trucking or earth moving equipment or erosion by water or other means.

e. Open-bodied vehicles transporting materials likely to become airborne shall have such materials covered at all times if the control measure is necessary for the materials being transported.

f. Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the best available technology requirements of OAC rule 3745-31-05.

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

Permit to Install and Operate P0104717 for this air contaminant source takes into account compliance with OAC rule 3745-31-05(A)(3) for PE, whenever this air contaminant source is in operation, as a voluntary restriction as proposed by the permittee. This restriction allows the permittee to avoid Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) for PM_{10} emissions.

h. 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).

i. 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).

j. This emissions unit is permitted at its potential to emit, as defined in OAC rule 3745-31-01, for all pollutants.

k. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to the Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 changes), such that BAT is no longer required by State regulations for National Ambient Air Quality Standards (NAAQS) pollutant(s) less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limitations/control measures no longer apply.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

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

Paved Roadways	Minimum Inspection Frequency
All	Once Per Day

Paved Parking Areas	Minimum Inspection Frequency
All	Once Per Day

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

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

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

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

c. the dates the control measures were implemented; and

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

The information required in d)(3)d shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

(4) The permittee shall record the number of trucks entering the plant site and their respective weights on a daily basis.

e) Reporting Requirements

(1) The permittee shall submit annual reports which specify the total PE and PM_{10} emissions in tons per year from this emissions unit for the previous calendar year. This report shall be submitted by April 15 of each year. This requirement may be satisfied by including and identifying the specific emissions data from these emissions units in the annual Fee Emission Report.

(2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall

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

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) shall be determined in accordance with the following methods:

a. Emission Limitation:

There shall be no visible particulate emissions except for one minute during any 60-minute period.

Applicable Compliance Method:

Compliance with the visible emission limitation listed above shall be determined in accordance with Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 2002, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(d) of OAC rule 3745-17-03.

b. Emission Limitation:

PE shall not exceed 48.89 TPY.

Applicable Compliance Method:

Compliance shall be calculated using calculations in AP-42, Section 13.2.1 (December 2003) and inputs representing the Potential To Emit (PTE), as follows:

$E = k[(sL/2)^{0.65} (W/3)^{1.5}-C] (1-P/4N)$

Where

E = emission factor (lb/VMT)

k = particle size multiplier = 0.082

sL = silt content of road surface material, in g/m^2 = 0.4 (80% control applied)

W = mean vehicle weight, in tons = 27.1

C = emission factor for exhaust, brake wear and tire wear = 0.00047

P = number of wet days per averaging period with at least 0.01 inch of precipitation = 140

N = number of days per averaging period = 365

Using the equation and input values above:

E = 0.7007 lb PE/vehicle mile traveled (VMT)

Using the AP-42 emission factor and the maximum annual VMT:

PE = (0.7062 lb/VMT)(138,457 VMT/yr)(0.0005 ton/lb)

PE = 48.89 tons/year.

c. Emission Limitation:

PM_{10} emissions shall not exceed 9.52 TPY.

Applicable Compliance Method:

Compliance shall be calculated using calculations in AP-42, Section 13.2.1 (December 2003) and inputs representing the Potential To Emit (PTE), as follows:

$E = k[(sL/2)^{0.65} (W/3)^{1.5}-C] (1-P/4N)$

Where

E = emission factor (lb/VMT)

k = particle size multiplier = 0.016

sL = silt content of road surface material, in g/m^2 = 0.4 (80% control applied)

W = mean vehicle weight, in tons = 27.1

C = emission factor for exhaust, brake wear and tire wear = 0.00047

P = number of wet days per averaging period with at least 0.01 inch of precipitation = 140

N = number of days per averaging period = 365

Using the equation and input values above:

E = 0.1375 lb PM_{10}/vehicle mile traveled (VMT)

Using the AP-42 emission factor and the maximum annual VMT:

PM_{10} = (0.1375 lb/VMT)(138,457 VMT/yr)(0.0005 ton/lb)

PM_{10} = 9.52 tons/year.

g) Miscellaneous Requirements

(1) The requirements of this permit supersede the requirements of PTI 08-04878 for this emissions unit, issued April 22, 2008 and represent no increase in emissions for this emissions unit.

2. F002, GrainDryer

Operations, Property and/or Equipment Description:

65 mmBtu/hr Column Grain Dryer

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)c, b)(1)d, c)(1), c)(2), d)(1), e)(2), e)(3), f)(1)b, f)(1)d, f)(1)f, f)(1)h, f)(1)j and f)(1)l.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Particulate emissions (PE) from this emissions unit shall not exceed 15.28 lbs/hr. The requirements established pursuant to this rule also include compliance with the requirements of OAC rules 3745-31-05(D) and 3745-31-05(E).
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	Carbon monoxide (CO) emissions from this emissions unit shall not exceed 5.46 lbs/hr. Nitrogen oxide (NO_X) emissions from this emissions unit shall not exceed 6.5 lbs/hr. Emissions of particulate matter less than 10 microns in diameter (PM_{10}) from this emissions unit shall not exceed 4.19

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		lbs/hr.
	OAC rule 3745-31-05(A)(3), as effective 11/30/01	Sulfur dioxide (SO_2) emissions from this emissions unit shall not exceed 0.04 lb/hr. Volatile organic compound (VOC) emissions from this emissions unit shall not exceed 0.36 lb/hr. The requirements established pursuant to this rule also include compliance with the requirements of OAC rules 3745-31-05(D). See b)(2)j.
c.	OAC rule 3745-31-05(D) (synthetic minor to avoid TV) and OAC rule 3745-31-05(E), as effective 12/01/06 (synthetic minor to avoid BAT)	CO emissions from this emissions unit shall not exceed 2.52 tons per rolling 12-month period. NO_X emissions from this emissions unit shall not exceed 3.0 tons per rolling 12-month period. PM_{10} emissions from this emissions unit shall not exceed 2.69 tons per rolling 12-month period. See b)(2)a.
d.	OAC rule 3745-31-05(D) (synthetic minor to avoid TV)	SO_2 emissions from this emissions unit shall not exceed 0.018 ton per rolling 12-month period. PE from this emissions unit shall not exceed 10.08 tons per rolling 12-month period. VOC emissions from this emissions unit shall not exceed 0.17 ton per rolling 12-month period.
e.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/06	See b)(2)b.
f.	OAC rule 3745-17-07(B)	See b)(2)c.
g.	OAC rule 3745-17-08(B)	See b)(2)d.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
h.	OAC rule 3745-18-06	See b)(2)e.
i.	40 CFR Part 60, Subpart DD	See b)(2)f.

(2) Additional Terms and Conditions

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

Permit to Install and Operate P0104717 for this air contaminant source takes into account a limitation on the amount of fuel combusted as a voluntary restriction as proposed by the permittee. This restriction allows the permittee to avoid Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) for CO, NO_X and PM_{10} emissions.

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

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the uncontrolled SO_2 and VOC emissions from this air contaminant source since the potential to emit is less than ten tons per year.

c. 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).

d. The facility 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).

e. This emissions unit is exempt from the requirements of OAC rule 3745-18-06 in accordance with OAC rule 3745-18-06(A).

f. Per 40 CFR 60.302(a), no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere any gases which exhibit greater than 0 percent opacity from any column dryer with column plate perforation exceeding 2.4 mm diameter (ca. 0.094 inch). This grain dryer F002 does not have column plate perforations exceeding this size; therefore, the visible emissions limitation does not apply.

g. This emissions unit is permitted at its potential to emit, as defined in OAC rule 3745-31-01, for all pollutants.

h. The Best Available Technology (BAT) control requirements for this emissions unit have been determined to be the use of column plate perforations not exceeding 2.4 mm (0.094 inch) in diameter. BAT also includes compliance with the terms

and conditions of this permit. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

i. This emissions unit consists of the grain dryer only. Grain material handling operations with the grain dryer, which are controlled by a baghouse venting to Stack S-22, are included with emissions unit P901.

j. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to the Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 changes), such that BAT is no longer required by State regulations for National Ambient Air Quality Standards (NAAQS) pollutant(s) less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limitations/control measures no longer apply.

c) Operational Restrictions

(1) The annual grain throughput rate for this emissions unit shall not exceed 224,000 tons per year, based upon a rolling, 12-month summation of the grain throughput rates.

(2) The annual natural gas usage in this emissions unit shall not exceed 60 million cubic feet (mmcf) per year, based upon a rolling, 12-month summation of the natural gas usage rates.

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

d) Monitoring and/or Recordkeeping Requirements

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

a. the grain throughput rate, in tons;

b. the natural gas usage, in mmcf;

c. the PE, PM_{10}, VOC, NO_X, CO and SO_2 emissions, in tons;

d. the rolling, 12-month summation of the grain throughput, in tons;

e. the rolling, 12-month summation of the natural gas usage, in mmcf; and

f. the rolling, 12-month summation of PE, PM_{10}, VOC, NO_X, CO and SO_2 emissions, in tons.

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

e) Reporting Requirements

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

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

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

i. all exceedances of the rolling, 12-month grain throughput limitation;

ii. all exceedances of the rolling, 12-month natural gas usage limitation; and

iii. all exceedances of the rolling, 12-month summation of PE, PM_{10}, VOC, NO_X, CO and SO_2 emissions limitations.

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

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

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

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

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

(3) The permittee shall submit annual reports which specify the total PE, PM_{10}, VOC, NO_X, CO and SO_2 emissions in tons per rolling 12-month period from this emissions unit for the previous calendar year. This report shall be submitted by April 15 of each year. This requirement may be satisfied by including and identifying the specific emissions data from these emissions units in the annual Fee Emission Report.

(4) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall

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

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) shall be determined in accordance with the following methods:

a. Emissions Limitation:

CO emissions from this emissions unit shall not exceed 5.46 lbs/hr.

Applicable Compliance Method:

Compliance shall be determined using AP-42 Table 1.4-1 (July 1998) and inputs representing the Potential To Emit (PTE),as follows:

Emissions = (maximum dryer heat input) * (emission factor) / (Fuel Heat Content)

Emissions = (65 mmBtu/hr) * (84 lb/mmcf) / (1,000 mmBtu/mmcf)

Emissions = 5.46 lbs/hr

b. Emissions Limitation:

CO emissions from this emissions unit shall not exceed 2.52 tons per rolling 12-month period.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in d)(1) and shall be calculated using AP-42 Table 1.4-1 (July 1998) as follows:

Emissions = (fuel usage) * (emission factor) * (Fuel Heat Content)

Emissions = (fuel usage in mmcf per rolling 12-month period) * (84 lb/mmcf) / (2,000 lbs/ton)

c. Emissions Limitation:

NO_X emissions from this emissions unit shall not exceed 6.5 lbs/hr.

Applicable Compliance Method:

Compliance shall be determined using AP-42 Table 1.4-1 (July 1998) and inputs representing the Potential To Emit (PTE),as follows:

Emissions = (maximum dryer heat input) * (emission factor) / (Fuel Heat Content)

Emissions = (65 mmBtu/hr) * (100 lb/mmcf) / (1,000 mmBtu/mmcf)

Emissions = 6.5 lbs/hr

d. Emissions Limitation:

NO_X emissions from this emissions unit shall not exceed 3.0 tons per rolling 12-month period.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in d)(1) and shall be calculated using AP-42 Table 1.4-1 (July 1998) as follows:

Emissions = (fuel usage) * (emission factor) * (Fuel Heat Content)

Emissions = (fuel usage in mmcf per rolling 12-month period) * (100 lb/mmcf) / (2,000 lbs/ton)

e. Emissions Limitation:

SO_2 emissions from this emissions unit shall not exceed 0.04 lb/hr.

Applicable Compliance Method:

Compliance shall be determined using AP-42 Table 1.4-1 (July 1998) and inputs representing the Potential To Emit (PTE),as follows:

Emissions = (maximum dryer heat input) * (emission factor) / (Fuel Heat Content)

Emissions = (65 mmBtu/hr) * (0.6 lb/mmcf) / (1,000 mmBtu/mmcf)

Emissions = 0.04 lb/hr

f. Emissions Limitation:

SO_2 emissions from this emissions unit shall not exceed 0.018 ton per rolling 12-month period.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in d)(1) and shall be calculated using AP-42 Table 1.4-2 (July 1998) as follows:

Emissions = (fuel usage) * (emission factor) * (Fuel Heat Content)

Emissions = (fuel usage in mmcf per rolling 12-month period) * (0.6 lb/mmcf) / (2,000 lbs/ton)

g. Emissions Limitation:

PE from this emissions unit shall not exceed 15.28 lbs/hr.

Applicable Compliance Method:

Compliance shall determined using AP-42 Table 1.4-2 (July 1998) for the combustion emissions, the grain dryer manufacturer-provided emissions factor

for the grain emissions and inputs representing the Potential To Emit (PTE), as follows:

Emissions = Combustion Emissions + Grain Emissions

Combustion Emissions = (maximum dryer heat input) * (emission factor) / (Fuel Heat Content)

Combustion Emissions = (65 mmBtu/hr) * (7.6 lb/mmcf) / (1,000 mmBtu/mmcf)

Combustion Emissions = 0.494 lb/hr

Grain Emissions = Emission Factor

Grain Emissions = 14.784 lbs/hr

Emissions = 0.494 + 14.784 = 15.28 lbs/hr

h. Emissions Limitation:

PE from this emissions unit shall not exceed 10.08 tons per rolling 12-month period.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in d)(1) and shall be calculated using AP-42 Table 1.4-2 (July 1998) for the combustion emissions and the grain dryer manufacturer-provided emissions factor for the grain emissions, as follows:

Emissions = Combustion Emissions + Grain Emissions

Combustion Emissions = (fuel usage) * (emission factor) * (Fuel Heat Content)

Combustion Emissions = (fuel usage in mmcf per rolling 12-month period) * (7.6 lb/mmcf) / (2,000 lbs/ton)

Grain Emissions = (emission factor) * (grain throughput) / (maximum grain dryer capacity) / (2000 lbs/ton)

Grain Emissions = (14.78 lbs PE/hr) * (grain throughput in tons grain per rolling 12-month period) / (168 tons grain/hr) / (2000 lbs/ton)

i. Emissions Limitation:

PM_{10} emissions from this emissions unit shall not exceed 4.19 lbs/hr.

Applicable Compliance Method:

Compliance shall be determined using AP-42 Table 1.4-2 (July 1998) for the combustion emissions, the grain dryer manufacturer-provided emissions factor

for the grain emissions, AP-42 Table 9.9.1-1 (March 2003) for the PM10 fraction and inputs representing the Potential to Emit (PTE), as follows:

Emissions = Combustion Emissions + Grain Emissions

Combustion Emissions = (maximum dryer heat input) * (emission factor) / (Fuel Heat Content)

Combustion Emissions = (65 mmBtu/hr) * (7.6 lb/mmcf) / (1,000 mmBtu/mmcf)

Combustion Emissions = 0.494 lb/hr

Grain Emissions = (PE emission factor) * (AP-42 PM_{10} emission factor / AP-42 PE emission factor)

Grain Emissions = (14.78 lbs PE/hr) * (0.055 lb PM10/ton / 0.22 lb PE/ton)

Grain Emissions = 3.7 lbs/hr

Emissions = 0.494 + 3.7 = 4.19 lbs/hr

j. Emissions Limitation:

PM_{10} emissions from this emissions unit shall not exceed 2.69 tons per rolling 12-month period.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in d)(1) and shall be calculated using AP-42 Table 1.4-2 (July 1998) for the combustion emissions, the grain dryer manufacturer-provided emissions factor for the grain emissions, and AP-42 Table 9.9.1-1 (March 2003) for the PM_{10} fraction, as follows:

Emissions = Combustion Emissions + Grain Emissions

Combustion Emissions = (fuel usage) * (emission factor) * (Fuel Heat Content)

Combustion Emissions = (fuel usage in mmcf per rolling 12-month period) * (7.6 lb/mmcf) / (2,000 lbs/ton)

Grain Emissions = (PE emission factor) * (AP-42 PM_{10} emission factor / AP-42 PE emission factor) * (grain throughput) / (maximum grain dryer capacity) / (2000 lbs/ton)

Grain Emissions = (14.78 lbs PE/hr) * (0.055 lb PM10/ton / 0.22 lb PE/ton) * (grain throughput in tons grain per rolling 12-month period) / (168 tons grain/hr) / (2000 lbs/ton)

k. Emissions Limitation:

VOC emissions from this emissions unit shall not exceed 0.36 lb/hr.

Applicable Compliance Method:

Compliance shall be determined using AP-42 Table 1.4-1 (July 1998) and inputs representing the Potential To Emit (PTE), as follows:

Emissions = (maximum dryer heat input) * (emission factor) / (Fuel Heat Content)

Emissions = (65 mmBtu/hr) * (5.5 lb/mmcf) / (1,000 mmBtu/mmcf)

Emissions = 0.36 lb/hr

l. Emissions Limitation:

VOC emissions from this emissions unit shall not exceed 0.17 ton per rolling 12-month period.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in Section d)(1) and shall be calculated using AP-42 Table 1.4-2 (July 1998) as follows:

Emissions = (fuel usage) * (emission factor) * (Fuel Heat Content)

Emissions = (fuel usage in mmcf per rolling 12-month period) * (5.5 lb/mmcf) / (2,000 lbs/ton)

g) Miscellaneous Requirements

(1) The requirements of this permit supersede the requirements of PTI 08-04878 for this emissions unit, issued April 22, 2008 and represent no increase in emissions for this emissions unit.

3. P006, Fermentation Units

Operations, Property and/or Equipment Description:

Fermentation and Beer Well controlled with a Scrubber

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)(7), d)(8) and e)(4).

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

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions shall not exceed 8.75 lbs/hr, as an 8-hour average. The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-09(DD) and 40 CFR Part 60, Subpart VV.
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	Particulate emissions (PE) shall not exceed 0.15 lb/hr. Emissions of particulate matter less than 10 microns in diameter (PM_{10}) shall not exceed 0.08 lb/hr. See b)(2)f.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-31-05(D) (synthetic minor to avoid TV)	VOC emissions shall not exceed 38.34 tons per rolling 12-month period. Single HAP emissions shall not exceed 6.13 tons per rolling 12-month period. Combined HAP emissions shall not exceed 6.30 tons per rolling 12-month period.
d.	OAC rule 3745-31-05(D) (synthetic minor to avoid TV) and OAC rule 3745-31-05(E), as effective 12/01/06 (synthetic minor to avoid BAT)	PE shall not exceed 0.66 ton per rolling 12-month period. PM_{10} emissions shall not exceed 0.35 ton per rolling 12-month period. See b)(2)b.
e.	OAC rule 3745-17-07(A)(1)	Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except for one 6-minute period per hour of not more than 60% opacity.
f.	OAC rule 3745-17-11(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3), as effective 11/30/01. See b)(2)g.
g.	OAC rule 3745-17-11(B)(1)	PE shall not exceed 66.7 lbs/hr. See b)(2)h.
h.	OAC rule 3745-21-09(DD) and 40 CFR Part 60, Subpart VV	See the requirements for emissions unit P801.
i.	ORC 3704.03(F) and OAC rule 3745-114-01	See d)(7), d)(8) and e)(4).

(2) Additional Terms and Conditions

a. The rolling 12-month allowable emission rates are based on the annual production of 132,000,000 gallons of denatured ethanol.

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

Permit to Install and Operate P0104717 for this air contaminant source takes into account the use of a wet scrubber, whenever this air contaminant source is in operation, with a minimum control efficiency of 98%, by weight for PE and PM_{10} emissions, as a voluntary restriction as proposed by the permittee. This restriction allows the permittee to avoid Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3).

c. This emissions unit is permitted at its potential to emit, as defined in OAC rule 3745-31-01, for all pollutants.

d. Best available technology (BAT) control requirements for the VOC emissions from this emissions unit has been determined to be the following:

i. implementation of a fugitive leak detection and repair program (LDAR) for all the miscellaneous process equipment associated with this emissions unit; and

ii. a high efficiency wet scrubber (CO_2 scrubber) to control VOC at 98%.

BAT also includes compliance with the terms and conditions of this permit. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

e. The permittee shall include the appropriate process equipment and regulated components in a site fugitive Leak Detection and Repair (LDAR) program. The LDAR program shall comply with the appropriate provisions (includes operational restrictions, monitoring and recordkeeping, reporting, and testing) of OAC rule 3745-21-09(DD) Leaks from process units that produce organic chemicals, and 40 CFR 60 Subpart VV (Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry).

f. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to the Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 changes), such that BAT is no longer required by State regulations for National Ambient Air Quality Standards (NAAQS) pollutant(s) less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limitations/control measures no longer apply.

g. This limitation reflects the current State Implementation Plan (SIP) for Ohio approved by the U.S. EPA for OAC rule 3745-31-05, as indicated in b)(2)f above.

Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then this emission limitation no longer applies.

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

c) Operational Restrictions

(1) The annual amount of undenatured ethanol produced from this emissions unit shall not exceed 125,710,000 gallons, based upon a rolling, 12-month summation of the undenatured ethanol production.

d) Monitoring and/or Recordkeeping Requirements

(1) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable pressure drop across the scrubber, that shall be maintained in order to demonstrate compliance, shall not be less than 10.5 inches of water column.

(2) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable well water flow rate to the scrubber, that shall be maintained in order to demonstrate compliance, shall not be less than 111 gallons per minute.

(3) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable rate of sodium bisulfite addition to the scrubber, that shall be maintained in order to demonstrate compliance, shall not be less than 270 milliliters per minute.

(4) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop across the scrubber (in inches of water column), the scrubber liquid flow rate (in gallons per minute), and the rate of sodium bisulfite addition to the scrubber (in milliliters per minute) during operation of this emissions unit, including periods of startup and shutdown. The permittee shall record the pressure drop across the scrubber, the scrubber liquid's flow rate, and the rate of sodium bisulfite addition to the scrubber on a once per shift basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

Whenever the monitored value for any parameter deviates from the range(s) or minimum limit(s) established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the control equipment parameters within the acceptable range(s), or at or above the minimum limit(s) specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

a. a description of the corrective action;

b. the date the corrective action 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 pressure drop, flow rate, and rate of sodium bisulfite addition to the scrubber readings immediately after the corrective action was implemented; and

f. the name(s) of the personnel who performed the work.

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

These range(s) and/or limit(s) for the pressure drop, liquid flow rate, and rate of sodium bisulfite addition to the scrubber are 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 range or limit for the pressure drop, liquid flow rate, or rate of sodium bisulfite addition to the scrubber based upon information obtained during future performance tests that demonstrate compliance with the allowable VOC emission rate for this emissions unit. In addition, approved revisions to the range or 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.

(5) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

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

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

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

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

a. the operating hours for each month;

b. the undenatured ethanol production rate for each month;

c. the VOC, PE, PM_{10}, single HAP and combined HAP emissions, in tons;

d. the rolling, 12-month summation of the undenatured ethanol production; and

e. the rolling, 12-month summation of VOC, PE, PM_{10}, single HAP and combined HAP emissions, in tons.

(7) The permit to install and operate (PTIO) for this emissions unit was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the PTIO application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied to this emissions unit for each toxic pollutant, using data from the PTIO application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Acetaldehyde

TLV (mg/m^3): 33.20

Maximum Hourly Emission Rate (lbs/hr): 1.40

Predicted 1-Hour Maximum Ground-Level Concentration ($\mu g/m^3$): 61.20 (entire facility)

MAGLC ($\mu g/m^3$): 790

Pollutant: Formaldehyde

TLV (mg/m^3): 0.272

Maximum Hourly Emission Rate (lbs/hr): 0.013

Predicted 1-Hour Maximum Ground-Level Concentration (µg/m^3): 5.05 (entire facility)

MAGLC (µg/m^3): 6.47

(8) The above described evaluation determined that the maximum ground level concentration for the new or modified source was less than 80% of the MAGLC. Per ORC 3704.03(F)(4)(b), the owner or operator shall submit an annual report that describes any changes to the emissions unit that affect the air toxic modeling. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");

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

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

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 pressure drop across the scrubber, the liquid flow rate, or the liquid pH was/were outside of the appropriate range or exceeded the applicable limit contained in this permit;

ii. 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 scrubber;

iii. all exceedances of the rolling, 12-month limitation of the undenatured ethanol production; and

iv. all exceedances of the rolling, 12-month VOC, PE, PM_{10}, single HAP and combined HAP emissions limitations.

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

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

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

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

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

(2) The permittee shall identify the following information in the annual permit evaluation report in accordance with the monitoring requirements for visible emissions in d)(5) above:

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

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

(3) The permittee shall submit annual reports which specify the total VOC, PE, PM_{10}, single HAP and combined HAP emissions in tons per rolling 12-month period from this emissions unit for the previous calendar year. This report shall be submitted by April 15 of each year. This requirement may be satisfied by including and identifying the specific emissions data from these emissions units in the annual Fee Emission Report.

(4) The permittee shall submit annual reports that describe any changes to this emissions unit which affect the air toxic modeling. If no changes were made during the year, then a report shall be submitted stating that no changes were made. This report is due by January 31 of each year and shall cover the previous calendar year.

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

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) shall be determined in accordance with the following methods:

a. <u>Emission Limitation</u>

VOC emissions shall not exceed 8.75 lbs/hr, as an 8-hour average.

Applicable Compliance Method

Compliance shall be demonstrated through performance testing as described in f)(2).

b. Emission Limitation

VOC emissions shall not exceed 38.34 tons per rolling 12-month period.

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements in d)(6) and shall be calculated by multiplying the hourly emission rate by annual operating hours and dividing by 2,000 pounds/ton.

c. Emission Limitation

PE shall not exceed 66.7 lbs/hr.

PE shall not exceed 0.15 lb/hr.

Applicable Compliance Method

Compliance shall be determined using an emission factor provided by the permittee and inputs representing the Potential To Emit (PTE), as follows:

Emissions = (ethanol production) * (emission factor) / (8760 hrs/yr)

Emissions = (125.71 mmgal/yr) * (10.51 lbs/mmgal) / (8760 hrs/yr)

Emissions = 0.15 lb/hr

If required, compliance shall be demonstrated through emissions testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-5.

d. Emission Limitation

PE shall not exceed 0.66 ton per rolling 12-month period.

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements in d)(6) and shall be calculated using an emission factor provided by the permittee, as follows:

Emissions = (ethanol production) * (emission factor) / (2000 lbs/ton)

Emissions = (ethanol production in mmgal per rolling 12-month period) * (10.51 lbs/mmgal) / (2000 lbs/ton)

e. Emission Limitation

PM_{10} shall not exceed 0.08 lb/hr.

Applicable Compliance Method

Compliance shall be determined using an emission factor provided by the permittee and inputs representing the Potential To Emit (PTE), as follows:

Emissions = (ethanol production) * (emission factor) / (8760 hrs/yr)

Emissions = (125.71 mmgal/yr) * (5.55 lbs/mmgal) / (8760 hrs/yr)

Emissions = 0.08 lb/hr

If required, compliance shall be demonstrated through emissions testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-5.

f. Emission Limitation

Emissions of PM_{10} shall not exceed 0.35 ton per rolling 12-month period.

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements in d)(6) and shall be calculated using an emission factor provided by the permittee, as follows:

Emissions = (ethanol production) * (emission factor) / (2000 lbs/ton)

Emissions = (ethanol production in mmgal per rolling 12-month period) * (5.55 lbs/mmgal) / (2000 lbs/ton)

g. Emission Limitation

Single HAP emissions shall not exceed 6.13 tons per rolling 12-month period.

Combined HAP emissions shall not exceed 6.30 tons per rolling 12-month period.

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements in d)(6) and shall be calculated by multiplying the hourly emission rate for each individual HAP by the annual operating hours and dividing by 2,000 pounds/ton. The hourly emissions rate of each individual HAP shall be determined through performance testing as described in f)(2) below.

To determine the annual emissions rate for combined HAPs, sum the annual emissions calculated above for each individual HAP.

h. Emission Limitation

Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except for one 6-minute period per hour of not more than 60% opacity.

Applicable Compliance Method

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

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

a. The emission testing shall be conducted between the months of May and September calendar year 2013.

b. The emission testing shall be conducted to:

i. demonstrate compliance with the allowable emissions rate for VOC of 8.75 lbs/hr, as an 8-hour average;

ii. demonstrate compliance with the allowable combined emission rate for single and combined HAPs; and

iii. verify the control efficiency (98% for VOC) of the scrubber

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

i. Methods 1 through 4 from 40 CFR Part 60, Appendix A for velocity traverses, velocity and volumetric flow rates, gas analysis, and moisture content;

ii. Methods 18 or 320 from 40 CFR Part 60, Appendix A for total VOC and total HAPs (including, but not limited to, acetaldehyde, acetic acid, ethanol, formaldehyde, formic acid, 2-furaldehyde, methanol and acrolein*); and

iii. Method 25 or Method 25A from 40 CFR Part 60, Appendix A for VOC control efficiency.

* With prior approval from the Regional Air Pollution Control Agency, the permittee may perform pre-screening to determine which VOC and HAPs should be tested.

Alternative U.S. EPA approved test methods may be used with prior approval from the Regional Air Pollution Control Agency.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

e. Not later than 60 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).

f. 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.

g. 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) The requirements of this permit supersede the requirements of PTI 08-04878 for this emissions unit, issued April 22, 2008 and represent no increase in emissions for this emissions unit.

4. P012, CoolingTowers

Operations, Property and/or Equipment Description:

Cooling Towers

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

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Particulate emissions (PE) and emissions of particulate matter less than 10 microns in diameter (PM_{10}) shall not exceed 3.13 lbs/hr. Visible PE from the stack serving this emissions unit shall not exceed 10% opacity, as a 6-minute average, except as provided by rule. See c)(1). The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D).
b.	OAC rule 3745-31-05(D) (synthetic minor to avoid TV)	PE and PM_{10} emissions shall not exceed 13.7 tons per rolling 12-month period.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-17-07(A)(1) and OAC rule 3745-17-11(B)(1)	The emissions limitations specified by these rules are less stringent than the emissions limitations established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

a. The Best Available Technology (BAT) control requirements for this emissions unit has been determined to be use of high efficiency drift eliminators. BAT also includes compliance with the terms and conditions of this permit. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

b. This emissions unit is permitted at its potential to emit, as defined in OAC rule 3745-31-01, for all pollutants.

c) Operational Restrictions

(1) The total dissolved solids content of the circulating cooling tower water shall not exceed 2,500 parts per million (ppm).

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall monitor the total dissolved solids content of the circulating cooling water on a monthly basis. The permittee shall maintain monthly records of the total dissolved solids content, in ppm.

(2) The permittee shall perform daily checks, when this emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The date and time of the visible emissions check and the presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

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

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

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

a. the PE and PM_{10} emissions, in tons; and

b. the rolling, 12-month summation of PE and PM_{10} emissions, in tons.

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 total dissolved solids content limitation; and

ii. all exceedances of the rolling, 12-month PE and PM_{10} emissions limitations.

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

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

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

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

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

(2) The permittee shall identify the following information in the annual permit evaluation report in accordance with the monitoring requirements for visible emissions in d)(2):

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

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

(3) The permittee shall submit annual reports which specify the total PE and PM_{10} emissions in tons per rolling 12-month period from this emissions unit for the previous calendar year. This report shall be submitted by April 15 of each year. This requirement may be satisfied by including and identifying the specific emissions data from these emissions units in the annual Fee Emission Report.

(4) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall

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

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) shall be determined in accordance with the following method:

a. Emission Limitation:

PE and PM_{10} emissions shall not exceed 3.13 lbs/hr.

Applicable Compliance Method:

Compliance shall be determined by multiplying the maximum circulating water flow (3,000,000 gal/hr) by the density of water (8.34 lb/gal), the percent drift (0.005%), and the maximum total dissolved solids concentration (2,500 lb solids/1,000,000 lbs water). If required, the permittee shall submit a testing proposal which will demonstrate that the maximum drift loss does not exceed 0.005 percent. Also, if required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 5, or an alternative U.S. EPA approved method.

b. Emission Limitation:

PE and PM_{10} emissions shall not exceed 13.7 tons per rolling 12-month period.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements in d)(1) and d)(3) and shall be calculated by multiplying the maximum circulating water flow by the density of water (8.34 lb/gal), the percent drift (0.005%), the total dissolved solids concentration [ppm, as determined in d)(1)], and the number of hours operated during the month and divided by 1,000,000 and 2,000 lbs/ton.

c. Emission Limitation:

Visible PE shall not exceed 10% opacity, as a six minute average.

Applicable Compliance Method:

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

g) Miscellaneous Requirements

(1) The requirements of this permit supersede the requirements of PTI 08-04878 for this emissions unit, issued April 22, 2008 and represent no increase in emissions for this emissions unit.

5. P013, Methanators

Operations, Property and/or Equipment Description:

Methanators vented to DDGS Dryer Number 1 (P008) and to a Flare

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)(7), d)(8) and e)(4).

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

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Emissions exhausted from Stack S10 serving this emissions unit shall not exceed 5.3 lbs/hr of volatile organic compounds (VOC). The requirements of this rule also include compliance with the requirements of OAC rules 3745-21-09(DD), 3745-31-05(D) and 40 CFR Part 60, Subpart VV.
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	Emissions exhausted from flare Stack S60 serving this emissions unit shall not exceed: 0.45 lb/hr of nitrogen oxides (NO_X); and 2.38 lbs/hr of carbon monoxide (CO). See b)(2)j.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/06	See b)(2)f.
d.	OAC rule 3745-21-09(DD) and 40 CFR Part 60, Subpart VV	See the requirements for emissions unit P801.
e.	ORC 3704.03(F) and OAC rule 3745-114-01	See d)(8), d)(9) and e)(5).
f.	OAC rule 3745-31-05(D) (synthetic minor to avoid TV)	Emissions exhausted from Stack S10 serving this emissions unit shall not exceed 23.1 tons of VOC per rolling 12-month period. Emissions exhausted from flare Stack S60 serving this emissions unit shall not exceed 0.15 ton of NO_X per rolling 12-month period.
g.	OAC rule 3745-31-05(D) (synthetic minor to avoid TV) OAC rule 3745-31-05(E), as effective 12/01/06 (synthetic minor to avoid BAT)	Emissions exhausted from flare Stack S60 serving this emissions unit shall not exceed 0.63 ton of CO per rolling 12-month period. See b)(2)g.

(2) Additional Terms and Conditions

a. Emissions from this emissions unit are typically vented to both DDGS Dryer Number 1 (P008) and a flare. If the dryer is not operating, all of the emissions from this emissions unit are vented to the flare. The worst-case emissions scenario is when this emissions unit vents to the dryer and the flare.

b. Emissions from B001, B002, P005, P007, P008, P009, P010, P011, P013 (except emissions vented to the flare Stack S60) and P902 (except emissions vented to Stack S70) are vented to a common stack identified as Stack S10.

c. The rolling 12-month allowable emission rates are based on the annual production of 132,000,000 gallons of denatured ethanol.

d. This emissions unit is permitted at its potential to emit, as defined in OAC rule 3745-31-01, for all pollutants.

e. Best available technology (BAT) control requirements for this emissions unit has been determined to be the following:

i. implementation of a fugitive leak detection and repair program (LDAR) for all the miscellaneous process equipment associated with this emissions unit;

ii. the use of the natural gas-fired thermal oxidizers to control VOC at 98% (or when this emissions unit is not vented to the thermal oxidizers, it will be vented to the flare to control VOC at 98%); and

iii. maintain enclosures and vent all the emissions to the thermal oxidizers or flare to ensure compliance.

BAT also includes compliance with the terms and conditions of this permit. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

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

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the NO_X emissions from this air contaminant source since the uncontrolled potential to emit for NO_X is less than 10 tons/year.

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

Permit to Install and Operate P0104717 for this air contaminant source takes into account an hours of operation limitation of 500 hours per year as a voluntary restriction on the venting of emissions to the flare as proposed by the permittee. This restriction allows the permittee to avoid Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) for CO emissions.

h. The permittee shall include the appropriate process equipment and regulated components in a site fugitive Leak Detection and Repair (LDAR) program. The LDAR program shall comply with the appropriate provisions (includes operational restrictions, monitoring and recordkeeping, reporting, and testing) of OAC rule 3745-21-09(DD) Leaks from process units that produce organic chemicals, and 40 CFR 60 Subpart VV (Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry).

i. The flare shall meet the following requirements:

i. the flare shall be designed for and operated with no visible emissions except for periods not to exceed a total of five minutes during any one hundred twenty consecutive minutes; and

ii. the flare shall be operated with either an electric arc ignition system or a pilot flame. If a pilot flame is employed, the flame shall be present at all times and shall be monitored with a thermocouple or any other equivalent device to detect the presence of the pilot flame. If an electric arc ignition system is employed, the arcing shall pulse continually and shall be monitored to detect any failure.

j. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to the Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 changes), such that BAT is no longer required by State regulations for National Ambient Air Quality Standards (NAAQS) pollutant(s) less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limitations/control measures no longer apply.

c) Operational Restrictions

(1) The annual operating hours for this emissions unit while venting emissions to the flare shall not exceed 500, based upon a rolling, 12-month summation of the operating hours.

d) Monitoring and/or Recordkeeping Requirements

(1) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable average combustion temperature within the thermal oxidizer, for any 3-hour block of time when the emissions unit controlled by the thermal oxidizer is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit was in compliance.

(2) The permittee shall properly install, operate, and maintain a continuous temperature monitor and recorder that measures and records the combustion temperature within the thermal oxidizer when the emissions unit is in operation, including periods of startup and shutdown. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within ± 1 percent of the temperature being measured or ± 5 degrees Fahrenheit, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manuals, with any modifications deemed necessary by the permittee. The permittee shall collect and record the following information each day the emissions unit is in operation:

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

b. a log (date and total time) of the downtime or bypass of the capture (collection) system and thermal oxidizer, and/or downtime of the monitoring equipment, when the associated emissions unit was in operation.

These records shall be maintained at the facility for a period of three years.

(3) Whenever the monitored average combustion temperature within the thermal oxidizer deviates from the limit established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

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

a. a description of the corrective action;

b. the date corrective action 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 temperature readings immediately after the corrective action was implemented; and

f. the name(s) of the personnel who performed the work.

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

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

(4) For each day during which the permittee burns a fuel other than biomethanator off-gases in this emissions unit, the permittee shall maintain a record of the type and quantity of fuel burned.

(5) The permittee shall monitor the flare to ensure that it is operated and maintained in conformance with its design.

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

a. the operating hours for this emissions unit while venting emissions to the flare for each month;

b. the operating hours of the emissions unit for each month;

c. the VOC emissions exhausted from Stack S10, in tons;

d. the CO and NO_X emissions exhausted through Stack S60, in tons;

e. the rolling, 12-month summation of VOC emissions exhausted from Stack S10, in tons; and

f. the rolling, 12-month summation of CO and NO_X emissions exhausted through Stack S60, in tons.

(7) The permit to install and operate (PTIO) for this emissions unit was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the PTIO application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied to this emissions unit for each toxic pollutant, using data from the PTIO application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Acetaldehyde

TLV (mg/m^3): 33.20

Maximum Hourly Emission Rate (lbs/hr): 0.40

Predicted 1-Hour Maximum Ground-Level Concentration ($\mu g/m^3$): 61.20 (entire facility)

MAGLC ($\mu g/m^3$): 790

Pollutant: Formaldehyde

TLV (mg/m^3): 0.272

Maximum Hourly Emission Rate (lbs/hr): 0.48

Predicted 1-Hour Maximum Ground-Level Concentration ($\mu g/m^3$): 5.05 (entire facility)

MAGLC ($\mu g/m^3$): 6.47

(8) The above described evaluation determined that the maximum ground level concentration for the new or modified source was less than 80% of the MAGLC. Per ORC 3704.03(F)(4)(b), the owner or operator shall submit an annual report that describes any changes to the emissions unit that affect the air toxic modeling. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");

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

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

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 average combustion temperature within the thermal oxidizer was outside of the acceptable range;

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

iii. all exceedances of the rolling, 12-month operating hours limitation for this emissions unit while venting emissions to the flare;

iv. all exceedances of the rolling, 12-month VOC emissions limitation for emissions exhausted from Stack S10; and

v. all exceedances of the rolling, 12-month CO and NO_X emissions limitations for emissions exhausted from Stack S60.

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

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

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

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

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

(2) The permittee shall submit deviation (excursion) reports to the Regional Air Pollution Control Agency that identify each day when a fuel other than biomethanator off-gases was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

(3) The permittee shall submit annual reports which specify the total VOC emissions exhausted from Stack S10 and the total CO and NO_X emissions exhausted from Stack S60 for the previous calendar year. This report shall be submitted by April 15 of each year. This requirement may be satisfied by including and identifying the specific emissions data from these emissions units in the annual Fee Emission Report.

(4) The permittee shall submit annual reports that describe any changes to this emissions unit which affect the air toxic modeling. If no changes were made during the year, then a report shall be submitted stating that no changes were made. This report is due by January 31 of each year and shall cover the previous calendar year.

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

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) shall be determined in accordance with the following methods:

a. <u>Emissions Limitation</u>

Emissions exhausted from Stack S10 serving this emissions unit shall not exceed 5.3 lbs/hr of VOC.

Applicable Compliance Method

Compliance shall be demonstrated through performance testing as described in the requirements for emissions units B001 and B002.

b. Emissions Limitation

Emissions exhausted from Stack S10 serving this emissions unit shall not exceed 23.1 tons of VOC per rolling 12-month period.

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements in d)(6) and shall be calculated by multiplying the hourly emission rate by the annual operating hours and dividing by 2,000 pounds/ton.

c. Emissions Limitation

Emissions exhausted from flare Stack S60 serving this emissions unit shall not exceed 0.45 lb/hr of NO_X.

Applicable Compliance Method

Compliance shall be determined using AP-42 Table 13.5-1 (September 1991) for methanator gas flaring, AP-42 Table 1.4-1 (July 1998) for the pilot burner emissions and inputs representing the Potential to Emit (PTE), as follows:

Emissions = Flare Emissions + Pilot Burner Emissions

Flare Emissions = (maximum flare heat input) * (flare emissions factor)

Flare Emissions = (6.4 mmBtu/hr) * (0.068 lb/mmBtu)

Flare Emissions = 0.44 lb/hr

Pilot Burner Emissions = (maximum pilot burner heat input) * (pilot burner emissions factor)

Pilot Burner Emissions = (0.1 mmBtu/hr) * (0.1 lb/mmBtu)

Pilot Burner Emissions = 0.01 lb/hr

Emissions = 0.44 lb/hr + 0.01 lb/hr = 0.45 lb/hr

d. Emissions Limitation

Emissions exhausted from flare Stack S60 serving this emissions unit shall not exceed 0.15 ton of NO_X per rolling 12-month period.

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements in d)(7) and shall be calculated using AP-42 Table 13.5-1 (September 1991) for methanator

gas flaring and AP-42 Table 1.4-1 (July 1998) for the pilot burner emissions, as follows:

Emissions = Flare Emissions + Pilot Burner Emissions

Flare Emissions = (maximum flare heat input) * (flare emissions factor) * (number of hours emissions were vented to the flare) / (2000 lbs/ton)

Flare Emissions = (6.4 mmBtu/hr) * (0.068 lb/mmBtu) * (number of hours emissions were vented to the flare) / (2000 lbs/ton)

Pilot Burner Emissions = (maximum pilot burner heat input) * (pilot burner emissions factor) * (8760 hours/year) / (2000 lbs/ton)

Pilot Burner Emissions = (0.1 mmBtu/hr) * (0.1 lb/mmBtu) * (8760 hours/year) / (2000 lbs/ton)

e. Emissions Limitation

Emissions exhausted from flare Stack S60 serving this emissions unit shall not exceed 2.38 lbs/hr of CO.

Applicable Compliance Method

Compliance shall be determined using AP-42 Table 13.5-1 (September 1991) for methanator gas flaring, AP-42 Table 1.4-1 (July 1998) for the pilot burner emissions and inputs representing the Potential to Emit (PTE), as follows:

Emissions = Flare Emissions + Pilot Burner Emissions

Flare Emissions = (maximum flare heat input) * (flare emissions factor)

Flare Emissions = (6.4 mmBtu/hr) * (0.37 lb/mmBtu)

Flare Emissions = 2.37 lbs/hr

Pilot Burner Emissions = (maximum pilot burner heat input) * (pilot burner emissions factor)

Pilot Burner Emissions = (0.1 mmBtu/hr) * (0.084 lb/mmBtu)

Pilot Burner Emissions = 0.0084 lb/hr

Emissions = 2.37 lbs/hr + 0.0084 lb/hr = 2.38 lbs/hr

f. Emissions Limitation

Emissions exhausted from flare Stack S60 serving this emissions unit shall not exceed 0.63 ton of CO per rolling 12-month period.

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements in d)(7) and shall be calculated using AP-42 Table 13.5-1 (September 1991) for methanator gas flaring and AP-42 Table 1.4-1 (July 1998) for the pilot burner emissions, as follows:

Emissions = Flare Emissions + Pilot Burner Emissions

Flare Emissions = (maximum flare heat input) * (flare emissions factor) * (number of hours emissions were vented to the flare) / (2000 lbs/ton)

Flare Emissions = (6.4 mmBtu/hr) * (0.37 lb/mmBtu) * (number of hours emissions were vented to the flare) / (2000 lbs/ton)

Pilot Burner Emissions = (maximum pilot burner heat input) * (pilot burner emissions factor) * (8760 hours/year) / (2000 lbs/ton)

Pilot Burner Emissions = (0.1 mmBtu/hr) * (0.084 lb/mmBtu) * (8760 hours/year) / (2000 lbs/ton)

g) Miscellaneous Requirements

(1) The requirements of this permit supersede the requirements of PTI 08-04878 for this emissions unit, issued April 22, 2008 and represent no increase in emissions for this emissions unit.

6. P014, EmerFireWaterPump

Operations, Property and/or Equipment Description:

Emergency Fire Water Pump powered by 300 hp Diesel-fired Engine

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

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

a. None.

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

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from any stack shall not exceed 20% opacity, as a 6-minute average, except for one 6-minute period per hour of not more than 60% opacity.
b.	OAC rule 3745-17-11(B)(5)(a)	PE shall not exceed 0.25 lb/mmBtu. See b)(2)a.
c.	OAC rule 3745-17-11(B)(5)(a)	PE shall not exceed 0.310 lb/mmBtu See b)(2)b.
d.	OAC rule 3745-18-06(G)	See b)(2)c.
e.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	Nitrogen oxides (NO_X) emissions shall not exceed 3.45 lbs/hr. See b)(2)g.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
f.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/06	See b)(2)d.
g.	40 CFR Part 60 Subpart IIII	See b)(2)e.

(2) Additional Terms and Conditions

a. This limitation reflects the current State Implementation Plan (SIP) for Ohio approved by the U.S. EPA. Ohio EPA has requested that the limitation be modified to 0.310 lb PE/mmBtu of actual heat input but the new limitation will not become effective until it is approved by U.S. EPA as a revision to the Ohio SIP for particulate matter.

b. This particulate emission limitation shall be effective and federally enforceable on the date the U.S. EPA approves this particulate emission limitation as a revision to the Ohio SIP for particulate matter.

c. This emissions unit is exempt from the requirements of OAC rule 3745-18-06(G) in accordance with OAC rule 3745-18-06(B).

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

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the uncontrolled emissions from this air contaminant source since the potential to emit is less than ten tons per year.

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

f. This emissions unit is permitted at its potential to emit, as defined in OAC rule 3745-31-01, for all pollutants.

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

EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limitations/control measures no longer apply.

c) Operational Restrictions

(1) The permittee shall only burn No. 2 oil or diesel fuel with a sulfur content of 0.5% or less in this emissions unit.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain monthly records of the type and quantity of fuel and the sulfur content of the fuel burned in this emissions unit. For each day during which the permittee burns a fuel other than No. 2 oil or diesel fuel in this emissions unit, the permittee shall maintain a record of the type and quantity of fuel burned.

(2) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

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

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

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under d)(2)d above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports to the Regional Air Pollution Control Agency that identify each day when a fuel other than No. 2 Oil or diesel fuel and/or the sulfur content of the fuel was above 0.5% was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

(2) The permittee shall identify the following information in the annual permit evaluation report in accordance with the monitoring requirements for visible emissions in d)(2) above:

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

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

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

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) shall be determined in accordance with the following methods:

a. Emissions Limitation:

PE shall not exceed 0.25 lb/mmBtu.

PE shall not exceed 0.310 lb/mmBtu.

Applicable Compliance Method:

Compliance shall be determined using the following calculation:

(0.0002 lb PE/hp-hr) * (300 hp) * (1,000,000 Btu/mmBtu) / (15.32 gals/hr) / 137,000 Btu/gal) = 0.0285 lb/mmBtu (heat input)

where:

0.0002 lb PE/hp-hr output is the engine manufacturer-provided emissions factor.

300 hp is the maximum engine power output.

15.32 gals/hr is the maximum rated fuel usage.

137,000 Btu/gal is the heat content of diesel fuel.

If required, compliance shall be demonstrated through emissions testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-5.

b. Emissions Limitation:

Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except for one 6-minute period per hour of not more than 60% opacity.

Applicable Compliance Method:

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

c. Emissions Limitation:

NO_X emissions shall not exceed 3.45 lbs/hr.

Applicable Compliance Method:

Compliance shall be determined using the following calculation:

(0.0115 lb/hp-hr) * (300 hp) = 3.45 lbs/hr

where:

0.0115 lb PE/hp-hr output is the engine manufacturer-provided emissions factor.

300 hp is the maximum engine power output.

g) Miscellaneous Requirements

(1) The requirements of this permit supersede the requirements of PTI 08-04878 for this emissions unit, issued April 22, 2008 and represent no increase in emissions for this emissions unit.

7. P801, Equipment Leaks

Operations, Property and/or Equipment Description:

Fugitive VOC Emissions (Leaks)

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

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

a. None.

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

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	Volatile Organic Compound (VOC) emissions shall not exceed 8.85 tons per rolling 12-month period. The requirement of this rule includes compliance with requirements of OAC rule 3745-21-09(DD) and 40 CFR Part 60, Subpart VV. See b)(2)b.
b.	OAC rule 3745-31-05(E), as effective 12/01/06 (synthetic minor to avoid BAT)	VOC emissions shall not exceed 8.85 tons per rolling 12-month period. See b)(2)c.
c.	OAC rule 3745-21-09(DD)	See b)(2)d and b)(2)e.
d.	40 CFR Part 60, Subpart VV	See g)(2).

(2) Additional Terms and Conditions

a. The rolling 12-month allowable emission rates are based on the annual production of 132,000,000 gallons of denatured ethanol.

b. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to the Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 changes), such that BAT is no longer required by State regulations for National Ambient Air Quality Standards (NAAQS) pollutant(s) less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limitations/control measures no longer apply.

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

Permit to Install and Operate P0104717 for this air contaminant source takes into account the use of a Leak Detection and Repair (LDAR) program, whenever this air contaminant source is in operation, as a voluntary restriction as proposed by the permittee. This restriction allows the permittee to avoid Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3).

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

e. Within 180 days of the start up of this emissions unit, the permittee shall develop a facility LDAR program. At a minimum, the program shall include all the appropriate process equipment and regulated components that are subject to this program and clearly identify how the permittee will comply with the appropriate provisions (including operational restrictions, monitoring and recordkeeping, reporting, and testing) of OAC rule 3745-21-09(DD) and 40 CFR Part 60, Subpart VV.

c) Operational Restrictions

(1) See g)(2) for the requirements of 40 CFR Part 60, Subpart VV.

d) Monitoring and/or Recordkeeping Requirements

(1) See g)(2) for the requirements of 40 CFR Part 60, Subpart VV.

(2) The permittee shall maintain monthly records of the rolling, 12-month summation of VOC emissions from this emissions unit, in tons.

e) Reporting Requirements

(1) See g)(2) for the requirements of 40 CFR Part 60, Subpart VV.

(2) The permittee shall submit annual reports which specify the total VOC emissions in tons per rolling 12-month period from this emissions unit for the previous calendar year. This report shall be submitted by April 15 of each year. This requirement may be satisfied by including and identifying the specific emissions data from these emissions units in the annual Fee Emission Report.

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

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) shall be determined in accordance with the following methods:

a. Emissions Limitation

VOC emissions shall not exceed 8.85 tons per rolling 12-month period.

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements in d)(2) and shall be calculated using the estimated component count based on similar ethanol plants and emission factors from 'Protocol for Equipment Leak Emission Estimates', EPA-453/R-95-017, Table 5-2. No testing is specifically required by this permit but, if appropriate, may be requested pursuant to OAC rule 3745-15-04(A). Such testing would be required to comply with methods described in OAC rule 3745-21-10 for volatile organic compounds.

(2) See g)(2) for the requirements of 40 CFR Part 60, Subpart VV.

g) Miscellaneous Requirements

(1) The requirements of this permit supersede the requirements of PTI 08-04878 for this emissions unit, issued April 22, 2008 and represent no increase in emissions for this emissions unit.

(2) 40 CFR Part 60, Subpart VV—Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry

§ 60.480 Applicability and designation of affected facility.

(a) (1) The provisions of this subpart apply to affected facilities in the synthetic organic chemicals manufacturing industry.

(2) The group of all equipment (defined in §60.481) within a process unit is an affected facility.

(b) Any affected facility under paragraph (a) of this section that commences construction or modification after January 5, 1981, shall be subject to the requirements of this subpart.

(c) Addition or replacement of equipment for the purpose of process improvement which is accomplished without a capital expenditure shall not by itself be considered a modification under this subpart.

(d) (1) If an owner or operator applies for one or more of the exemptions in this paragraph, then the owner or operator shall maintain records as required in §60.486(i).

(2) Any affected facility that has the design capacity to produce less than 1,000 Mg/yr (1,102 ton/yr) is exempt from §60.482.

(3) If an affected facility produces heavy liquid chemicals only from heavy liquid feed or raw materials, then it is exempt from §60.482.

(4) Any affected facility that produces beverage alcohol is exempt from §60.482.

(5) Any affected facility that has no equipment in VOC service is exempt from §60.482.

(e) *Alternative means of compliance* — (1) Option to comply with part 65. Owners or operators may choose to comply with the provisions of 40 CFR part 65, subpart F, to satisfy the requirements of §§60.482 through 60.487 for an affected facility. When choosing to comply with 40 CFR part 65, subpart F, the requirements of §60.485(d), (e), and (f), and §60.486(i) and (j) still apply. Other provisions applying to an owner or operator who chooses to comply with 40 CFR part 65 are provided in 40 CFR 65.1.

(2) Part 60, subpart A. Owners or operators who choose to comply with 40 CFR part 65, subpart F must also comply with §§60.1, 60.2, 60.5, 60.6, 60.7(a)(1) and (4), 60.14, 60.15, and 60.16 for that equipment. All sections and paragraphs of subpart A of this part that are not mentioned in this paragraph (e)(2) do not apply to owners or operators of equipment subject to this subpart complying with 40 CFR part 65, subpart F, except that provisions required to be met prior to implementing 40 CFR part 65 still apply. Owners and operators who choose to

comply with 40 CFR part 65, subpart F, must comply with 40 CFR part 65, subpart A.

§ 60.481 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act or in subpart A of part 60, and the following terms shall have the specific meanings given them.

Capital expenditure means, in addition to the definition in 40 CFR 60.2, an expenditure for a physical or operational change to an existing facility that:

(a) Exceeds P, the product of the facility's replacement cost, R, and an adjusted annual asset guideline repair allowance, A, as reflected by the following equation: P = R × A, where

(1) The adjusted annual asset guideline repair allowance, A, is the product of the percent of the replacement cost, Y, and the applicable basic annual asset guideline repair allowance, B, divided by 100 as reflected by the following equation:

A = Y × (B ÷ 100);

(2) The percent Y is determined from the following equation: Y = 1.0 −-0.575 log X, where X is 1982 minus the year of construction; and

(3) The applicable basic annual asset guideline repair allowance, B, is selected from the following table consistent with the applicable subpart:

Table for Determining Applicable for B

Subpart applicable to facility	Value of B to be used in equation
VV	12.5
DDD	12.5
GGG	7.0
KKK	4.5

Closed vent system means a system that is not open to the atmosphere and that is composed of hard-piping, ductwork, connections, and, if necessary, flow-inducing devices that transport gas or vapor from a piece or pieces of equipment to a control device or back to a process.

Connector means flanged, screwed, welded, or other joined fittings used to connect two pipe lines or a pipe line and a piece of process equipment.

Control device means an enclosed combustion device, vapor recovery system, or flare.

Distance piece means an open or enclosed casing through which the piston rod travels, separating the compressor cylinder from the crankcase.

Double block and bleed system means two block valves connected in series with a bleed valve or line that can vent the line between the two block valves.

Duct work means a conveyance system such as those commonly used for heating and ventilation systems. It is often made of sheet metal and often has sections connected by screws or crimping. Hard-piping is not ductwork.

Equipment means each pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, valve, and flange or other connector in VOC service and any devices or systems required by this subpart.

First attempt at repair means to take rapid action for the purpose of stopping or reducing leakage of organic material to atmosphere using best practices.

Fuel gas means gases that are combusted to derive useful work or heat.

Fuel gas system means the offsite and onsite piping and flow and pressure control system that gathers gaseous stream(s) generated by onsite operations, may blend them with other sources of gas, and transports the gaseous stream for use as fuel gas in combustion devices or in-process combustion equipment, such as furnaces and gas turbines, either singly or in combination.

Hard-piping means pipe or tubing that is manufactured and properly installed using good engineering judgement and standards such as ASME B31.3, Process Piping (available from the American Society of Mechanical Engineers, PO Box 2900, Fairfield, NJ 07007–2900).

In gas/vapor service means that the piece of equipment contains process fluid that is in the gaseous state at operating conditions.

In heavy liquid service means that the piece of equipment is not in gas/vapor service or in light liquid service.

In light liquid service means that the piece of equipment contains a liquid that meets the conditions specified in §60.485(e).

In-situ sampling systems means nonextractive samplers or in-line samplers.

In vacuum service means that equipment is operating at an internal pressure which is at least 5 kilopascals (kPa)(0.7 psia) below ambient pressure.

In VOC service means that the piece of equipment contains or contacts a process fluid that is at least 10 percent VOC by weight. (The provisions of §60.485(d) specify how to determine that a piece of equipment is not in VOC service.)

Liquids dripping means any visible leakage from the seal including spraying, misting, clouding, and ice formation.

Open-ended valve or line means any valve, except safety relief valves, having one side of the valve seat in contact with process fluid and one side open to the atmosphere, either directly or through open piping.

Pressure release means the emission of materials resulting from system pressure being greater than set pressure of the pressure relief device.

Process improvement means routine changes made for safety and occupational health requirements, for energy savings, for better utility, for ease of maintenance and operation, for correction of design deficiencies, for bottleneck removal, for changing product requirements, or for environmental control.

Process unit means components assembled to produce, as intermediate or final products, one or more of the chemicals listed in §60.489 of this part. A process unit can operate independently if supplied with sufficient feed or raw materials and sufficient storage facilities for the product.

Process unit shutdown means a work practice or operational procedure that stops production from a process unit or part of a process unit. An unscheduled work practice or operational procedure that stops production from a process unit or part of a process unit for less than 24 hours is not a process unit shutdown. The use of spare equipment and technically feasible bypassing of equipment without stopping production are not process unit shutdowns.

Quarter means a 3-month period; the first quarter concludes on the last day of the last full month during the 180 days following initial startup.

Repaired means that equipment is adjusted, or otherwise altered, in order to eliminate a leak as indicated by one of the following: an instrument reading of 10,000 ppm or greater, indication of liquids dripping, or indication by a sensor that a seal or barrier fluid system has failed.

Replacement cost means the capital needed to purchase all the depreciable components in a facility.

Sampling connection system means an assembly of equipment within a process unit used during periods of representative operation to take samples of the process fluid. Equipment used to take nonroutine grab samples is not considered a sampling connection system.

Sensor means a device that measures a physical quantity or the change in a physical quantity such as temperature, pressure, flow rate, pH, or liquid level.

Synthetic organic chemicals manufacturing industry means the industry that produces, as intermediates or final products, one or more of the chemicals listed in §60.489.

Volatile organic compounds or VOC means, for the purposes of this subpart, any reactive organic compounds as defined in §60.2 Definitions.

§ 60.482-1 Standards: General.

(a) Each owner or operator subject to the provisions of this subpart shall demonstrate compliance with the requirements of §§60.482–1 through 60.482–10 or §60.480(e) for all equipment within 180 days of initial startup.

(b) Compliance with §§60.482–1 to 60.482–10 will be determined by review of records and reports, review of performance test results, and inspection using the methods and procedures specified in §60.485.

(c) (1) An owner or operator may request a determination of equivalence of a means of emission limitation to the requirements of §§60.482–2, 60.482–3, 60.482–5, 60.482–6, 60.482–7, 60.482–8, and 60.482–10 as provided in §60.484.

(2) If the Administrator makes a determination that a means of emission limitation is at least equivalent to the requirements of §§60.482–2, 60.482–3, 60.482–5, 60.482–6, 60.482–7, 60.482–8, or 60.482–10, an owner or operator shall comply with the requirements of that determination.

(d) Equipment that is in vacuum service is excluded from the requirements of §§60.482–2 to 60.482–10 if it is identified as required in §60.486(e)(5).

§ 60.482-2 Standards: Pumps in light liquid service.

(a) (1) Each pump in light liquid service shall be monitored monthly to detect leaks by the methods specified in §60.485(b), except as provided in §60.482–1(c) and paragraphs (d), (e), and (f) of this section.

(2) Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal.

(b) (1) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(2) If there are indications of liquids dripping from the pump seal, a leak is detected.

(c) (1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in §60.482–9.

(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(d) Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of paragraph (a), Provided the following requirements are met:

(1) Each dual mechanical seal system is—

(i) Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure; or

(ii) Equipment with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed vent system to a control device that complies with the requirements of §60.482–10; or

(iii) Equipped with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere.

(2) The barrier fluid system is in heavy liquid service or is not in VOC service.

(3) Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.

(4) Each pump is checked by visual inspection, each calendar week, for indications of liquids dripping from the pump seals.

(5) (i) Each sensor as described in paragraph (d)(3) is checked daily or is equipped with an audible alarm, and

(ii) The owner or operator determines, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.

(6) (i) If there are indications of liquids dripping from the pump seal or the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion determined in paragraph (d)(5)(ii), a leak is detected.

(ii) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in §60.482–9.

(iii) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(e) Any pump that is designated, as described in §60.486(e)(1) and (2), for no detectable emission, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraphs (a), (c), and (d) of this section if the pump:

(1) Has no externally actuated shaft penetrating the pump housing,

(2) Is demonstrated to be operating with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background as measured by the methods specified in §60.485(c), and

(3) Is tested for compliance with paragraph (e)(2) of this section initially upon designation, annually, and at other times requested by the Administrator.

(f) If any pump is equipped with a closed vent system capable of capturing and transporting any leakage from the seal or seals to a process or to a fuel gas system or to a control device that complies with the requirements of §60.482–10, it is exempt from paragraphs (a) through (e) of this section.

(g) Any pump that is designated, as described in §60.486(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of paragraphs (a) and (d)(4) through (6) of this section if:

(1) The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraph (a) of this section; and

(2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in paragraph (c) of this section if a leak is detected.

(h) Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of paragraphs (a)(2) and (d)(4) of this section, and the daily requirements of paragraph (d)(5) of this section, provided that each pump is visually inspected as often as practicable and at least monthly.

§ 60.482-3 Standards: Compressors.

(a) Each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of VOC to the atmosphere, except as provided in §60.482–1(c) and paragraph (h) and (i) of this section.

(b) Each compressor seal system as required in paragraph (a) shall be:

(1) Operated with the barrier fluid at a pressure that is greater than the compressor stuffing box pressure; or

(2) Equipped with a barrier fluid system degassing reservoir that is routed to a process or fuel gas system or connected by a closed vent system to a control device that complies with the requirements of §60.482–10; or

(3) Equipped with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere.

(c) The barrier fluid system shall be in heavy liquid service or shall not be in VOC service.

(d) Each barrier fluid system as described in paragraph (a) shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both.

(e) (1) Each sensor as required in paragraph (d) shall be checked daily or shall be equipped with an audible alarm.

(2) The owner or operator shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.

(f) If the sensor indicates failure of the seal system, the barrier system, or both based on the criterion determined under paragraph (e)(2), a leak is detected.

(g) (1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in §60.482–9.

(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(h) A compressor is exempt from the requirements of paragraphs (a) and (b) of this section, if it is equipped with a closed vent system to capture and transport leakage from the compressor drive shaft back to a process or fuel gas system or to a control device that complies with the requirements of §60.482–10, except as provided in paragraph (i) of this section.

(i) Any compressor that is designated, as described in §60.486(e) (1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraphs (a)–(h) if the compressor:

(1) Is demonstrated to be operating with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the methods specified in §60.485(c); and

(2) Is tested for compliance with paragraph (i)(1) of this section initially upon designation, annually, and at other times requested by the Administrator.

(j) Any existing reciprocating compressor in a process unit which becomes an affected facility under provisions of §60.14 or §60.15 is exempt from §60.482(a), (b), (c), (d), (e), and (h), provided the owner or operator demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of paragraphs (a) through (e) and (h) of this section.

§ 60.482-4 Standards: Pressure relief devices in gas/vapor service.

(a) Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in §60.485(c).

(b) (1) After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in §60.482–9.

(2) No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in §60.485(c).

(c) Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in §60.482–10 is exempted from the requirements of paragraphs (a) and (b) of this section.

(d) (1) Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the requirements of paragraphs (a) and (b) of this section, provided the owner or operator complies with the requirements in paragraph (d)(2) of this section.

(2) After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in §60.482–9.

§ 60.482-5 Standards: Sampling connection systems.

(a) Each sampling connection system shall be equipped with a closed-purged, closed-loop, or closed-vent system, except as provided in §60.482–1(c). Gases displaced during filling of the sample container are not required to be collected or captured.

(b) Each closed-purge, closed-loop, or closed-vent system as required in paragraph (a) of this section shall comply with the requirements specified in paragraphs (b)(1) through (4) of this section:

(1) Return the purged process fluid directly to the process line; or

(2) Collect and recycle the purged process fluid to a process; or

(3) Be designed and operated to capture and transport all the purged process fluid to a control device that complies with the requirements of §60.482–10; or

(4) Collect, store, and transport the purged process fluid to any of the following systems or facilities:

(i) A waste management unit as defined in 40 CFR 63.111, if the waste management unit is subject to, and operated in compliance with the provisions of 40 CFR part 63, subpart G, applicable to Group 1 wastewater streams;

(ii) A treatment, storage, or disposal facility subject to regulation under 40 CFR part 262, 264, 265, or 266; or

(iii) A facility permitted, licensed, or registered by a State to manage municipal or industrial solid waste, if the process fluids are not hazardous waste as defined in 40 CFR part 261.

(c) In situ sampling systems and sampling systems without purges are exempt from the requirements of paragraphs (a) and (b) of this section.

§ 60.482-6 Standards: Open-ended valves or lines.

(a) (1) Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in §60.482–1(c).

(2) The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line.

(b) Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.

(c) When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with paragraph (a) at all other times.

(d) Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of paragraphs (a), (b) and (c) of this section.

(e) Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in paragraphs (a) through (c) of this section are exempt from the requirements of paragraphs (a) through (c) of this section.

§ 60.482-7 Standards: Valves in gas/vapor service and in light liquid service.

(a) Each valve shall be monitored monthly to detect leaks by the methods specified in §60.485(b) and shall comply with paragraphs (b) through (e), except as provided in paragraphs (f), (g), and (h), §60.483–1, 2, and §60.482–1(c).

(b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(c) (1) Any valve for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected.

(2) If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months.

(d) (1) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in §60.482–9.

(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(e) First attempts at repair include, but are not limited to, the following best practices where practicable:

(1) Tightening of bonnet bolts;

(2) Replacement of bonnet bolts;

(3) Tightening of packing gland nuts;

(4) Injection of lubricant into lubricated packing.

(f) Any valve that is designated, as described in §60.486(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraph (a) if the valve:

(1) Has no external actuating mechanism in contact with the process fluid,

(2) Is operated with emissions less than 500 ppm above background as determined by the method specified in §60.485(c), and

(3) Is tested for compliance with paragraph (f)(2) of this section initially upon designation, annually, and at other times requested by the Administrator.

(g) Any valve that is designated, as described in §60.486(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of paragraph (a) if:

(1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraph (a), and

(2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times.

(h) Any valve that is designated, as described in §60.486(f)(2), as a difficult-to-monitor valve is exempt from the requirements of paragraph (a) if:

(1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface.

(2) The process unit within which the valve is located either becomes an affected facility through §60.14 or §60.15 or the owner or operator designates less than 3.0 percent of the total number of valves as difficult-to-monitor, and

(3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year.

§ 60.482-8 Standards: Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors.

(a) If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, the owner or operator shall follow either one of the following procedures:

(1) The owner or operator shall monitor the equipment within 5 days by the method specified in §60.485(b) and shall comply with the requirements of paragraphs (b) through (d) of this section.

(2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak.

(b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(c) (1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in §60.482–9.

(2) The first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(d) First attempts at repair include, but are not limited to, the best practices described under §60.482–7(e).

§ 60.482-9 Standards: Delay of repair.

(a) Delay of repair of equipment for which leaks have been detected will be allowed if repair within 15 days is technically infeasible without a process unit shutdown. Repair of this equipment shall occur before the end of the next process unit shutdown.

(b) Delay of repair of equipment will be allowed for equipment which is isolated from the process and which does not remain in VOC service.

(c) Delay of repair for valves will be allowed if:

(1) The owner or operator demonstrates that emissions of purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair, and

(2) When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with §60.482–10.

(d) Delay of repair for pumps will be allowed if:

(1) Repair requires the use of a dual mechanical seal system that includes a barrier fluid system, and

(2) Repair is completed as soon as practicable, but not later than 6 months after the leak was detected.

(e) Delay of repair beyond a process unit shutdown will be allowed for a valve, if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next process unit shutdown will not be allowed unless the next process unit shutdown occurs sooner than 6 months after the first process unit shutdown.

§ 60.482-10 Standards: Closed vent systems and control devices.

(a) Owners or operators of closed vent systems and control devices used to comply with provisions of this subpart shall comply with the provisions of this section.

(b) Vapor recovery systems (for example, condensers and absorbers) shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent.

(c) Enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816˚C.

(d) Flares used to comply with this subpart shall comply with the requirements of §60.18.

(e) Owners or operators of control devices used to comply with the provisions of this subpart shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs.

(f) Except as provided in paragraphs (i) through (k) of this section, each closed vent system shall be inspected according to the procedures and schedule specified in paragraphs (f)(1) and (f)(2) of this section.

(1) If the vapor collection system or closed vent system is constructed of hard-piping, the owner or operator shall comply with the requirements specified in paragraphs (f)(1)(i) and (f)(1)(ii) of this section:

(i) Conduct an initial inspection according to the procedures in §60.485(b); and

(ii) Conduct annual visual inspections for visible, audible, or olfactory indications of leaks.

(2) If the vapor collection system or closed vent system is constructed of ductwork, the owner or operator shall:

(i) Conduct an initial inspection according to the procedures in §60.485(b); and

(ii) Conduct annual inspections according to the procedures in §60.485(b).

(g) Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practicable except as provided in paragraph (h) of this section.

(1) A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.

(2) Repair shall be completed no later than 15 calendar days after the leak is detected.

(h) Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown.

(i) If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of paragraphs (f)(1)(i) and (f)(2) of this section.

(j) Any parts of the closed vent system that are designated, as described in paragraph (l)(1) of this section, as unsafe to inspect are exempt from the inspection requirements of paragraphs (f)(1)(i) and (f)(2) of this section if they comply with the requirements specified in paragraphs (j)(1) and (j)(2) of this section:

(1) The owner or operator determines that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with paragraphs (f)(1)(i) or (f)(2) of this section; and

(2) The owner or operator has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times.

(k) Any parts of the closed vent system that are designated, as described in paragraph (l)(2) of this section, as difficult to inspect are exempt from the inspection requirements of paragraphs (f)(1)(i) and (f)(2) of this section if they comply with the requirements specified in paragraphs (k)(1) through (k)(3) of this section:

(1) The owner or operator determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface; and

(2) The process unit within which the closed vent system is located becomes an affected facility through §§60.14 or 60.15, or the owner or operator designates less than 3.0 percent of the total number of closed vent system equipment as difficult to inspect; and

(3) The owner or operator has a written plan that requires inspection of the equipment at least once every 5 years. A closed vent system is exempt from inspection if it is operated under a vacuum.

(l) The owner or operator shall record the information specified in paragraphs (l)(1) through (l)(5) of this section.

(1) Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment.

(2) Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment.

(3) For each inspection during which a leak is detected, a record of the information specified in §60.486(c).

(4) For each inspection conducted in accordance with §60.485(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

(5) For each visual inspection conducted in accordance with paragraph (f)(1)(ii) of this section during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

(m) Closed vent systems and control devices used to comply with provisions of this subpart shall be operated at all times when emissions may be vented to them.

§ 60.483-1 Alternative standards for valves—allowable percentage of valves leaking.

(a) An owner or operator may elect to comply with an allowable percentage of valves leaking of equal to or less than 2.0 percent.

(b) The following requirements shall be met if an owner or operator wishes to comply with an allowable percentage of valves leaking:

(1) An owner or operator must notify the Administrator that the owner or operator has elected to comply with the allowable percentage of valves leaking before implementing this alternative standard, as specified in §60.487(d).

(2) A performance test as specified in paragraph (c) of this section shall be conducted initially upon designation, annually, and at other times requested by the Administrator.

(3) If a valve leak is detected, it shall be repaired in accordance with §60.482–7(d) and (e).

(c) Performance tests shall be conducted in the following manner:

(1) All valves in gas/vapor and light liquid service within the affected facility shall be monitored within 1 week by the methods specified in §60.485(b).

(2) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(3) The leak percentage shall be determined by dividing the number of valves for which leaks are detected by the number of valves in gas/vapor and light liquid service within the affected facility.

(d) Owners and operators who elect to comply with this alternative standard shall not have an affected facility with a leak percentage greater than 2.0 percent.

§ 60.483-2 Alternative standards for valves—skip period leak detection and repair.

(a) (1) An owner or operator may elect to comply with one of the alternative work practices specified in paragraphs (b)(2) and (3) of this section.

(2) An owner or operator must notify the Administrator before implementing one of the alternative work practices, as specified in §60.487(d).

(b) (1) An owner or operator shall comply initially with the requirements for valves in gas/vapor service and valves in light liquid service, as described in §60.482–7.

(2) After 2 consecutive quarterly leak detection periods with the percent of valves leaking equal to or less than 2.0, an owner or operator may begin to skip 1 of the quarterly leak detection periods for the valves in gas/vapor and light liquid service.

(3) After 5 consecutive quarterly leak detection periods with the percent of valves leaking equal to or less than 2.0, an owner or operator may begin to skip 3 of the quarterly leak detection periods for the valves in gas/vapor and light liquid service.

(4) If the percent of valves leaking is greater than 2.0, the owner or operator shall comply with the requirements as described in §60.482–7 but can again elect to use this section.

(5) The percent of valves leaking shall be determined by dividing the sum of valves found leaking during current monitoring and valves for which repair has been delayed by the total number of valves subject to the requirements of this section.

(6) An owner or operator must keep a record of the percent of valves found leaking during each leak detection period.

§ 60.484 Equivalence of means of emission limitation.

(a) Each owner or operator subject to the provisions of this subpart may apply to the Administrator for determination of equivalence for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in this subpart.

(b) Determination of equivalence to the equipment, design, and operational requirements of this subpart will be evaluated by the following guidelines:

(1) Each owner or operator applying for an equivalence determination shall be responsible for collecting and verifying test data to demonstrate equivalence of means of emission limitation.

(2) The Administrator will compare test data for the means of emission limitation to test data for the equipment, design, and operational requirements.

(3) The Administrator may condition the approval of equivalence on requirements that may be necessary to assure operation and maintenance to achieve the same emission reduction as the equipment, design, and operational requirements.

(c) Determination of equivalence to the required work practices in this subpart will be evaluated by the following guidelines:

(1) Each owner or operator applying for a determination of equivalence shall be responsible for collecting and verifying test data to demonstrate equivalence of an equivalent means of emission limitation.

(2) For each affected facility for which a determination of equivalence is requested, the emission reduction achieved by the required work practice shall be demonstrated.

(3) For each affected facility, for which a determination of equivalence is requested, the emission reduction achieved by the equivalent means of emission limitation shall be demonstrated.

(4) Each owner or operator applying for a determination of equivalence shall commit in writing to work practice(s) that provide for emission reductions equal to or greater than the emission reductions achieved by the required work practice.

(5) The Administrator will compare the demonstrated emission reduction for the equivalent means of emission limitation to the demonstrated emission reduction for the required work practices and will consider the commitment in paragraph (c)(4).

(6) The Administrator may condition the approval of equivalence on requirements that may be necessary to assure operation and maintenance to achieve the same emission reduction as the required work practice.

(d) An owner or operator may offer a unique approach to demonstrate the equivalence of any equivalent means of emission limitation.

(e) (1) After a request for determination of equivalence is received, the Administrator will publish a notice in the Federal Register and provide the opportunity for public hearing if the Administrator judges that the request may be approved.

(2) After notice and opportunity for public hearing, the Administrator will determine the equivalence of a means of emission limitation and will publish the determination in the Federal Register.

(3) Any equivalent means of emission limitations approved under this section shall constitute a required work practice, equipment, design, or operational standard within the meaning of section 111(h)(1) of the Clean Air Act.

(f) (1) Manufacturers of equipment used to control equipment leaks of VOC may apply to the Administrator for determination of equivalence for any equivalent means of emission limitation that achieves a reduction in emissions of VOC achieved by the equipment, design, and operational requirements of this subpart.

(2) The Administrator will make an equivalence determination according to the provisions of paragraphs (b), (c), (d), and (e) of this section.

§ 60.485 Test methods and procedures.

(a) In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b).

(b) The owner or operator shall determine compliance with the standards in §§60.482, 60.483, and 60.484 as follows:

(1) Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21. The following calibration gases shall be used:

(i) Zero air (less than 10 ppm of hydrocarbon in air); and

(ii) A mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane.

(c) The owner or operator shall determine compliance with the no detectable emission standards in §§60.482–2(e), 60.482–3(i), 60.482–4, 60.482–7(f), and 60.482–10(e) as follows:

(1) The requirements of paragraph (b) shall apply.

(2) Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.

(d) The owner or operator shall test each piece of equipment unless he demonstrates that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used:

(1) Procedures that conform to the general methods in ASTM E260–73, 91, or 96, E168–67, 77, or 92, E169–63, 77, or 93 (incorporated by reference—see §60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment.

(2) Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid.

(3) Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, paragraphs (d) (1) and (2) of this section shall be used to resolve the disagreement.

(e) The owner or operator shall demonstrate that an equipment is in light liquid service by showing that all the following conditions apply:

(1) The vapor pressure of one or more of the components is greater than 0.3 kPa at 20˚C (1.2 in. H_2O at 68˚F). Standard reference texts or ASTM D2879–83, 96, or 97 (incorporated by reference—see §60.17) shall be used to determine the vapor pressures.

(2) The total concentration of the pure components having a vapor pressure greater than 0.3 kPa at 20˚C (1.2 in. H_2O at 68˚F) is equal to or greater than 20 percent by weight.

(3) The fluid is a liquid at operating conditions.

(f) Samples used in conjunction with paragraphs (d), (e), and (g) of this section shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare.

(g) The owner or operator shall determine compliance with the standards of flares as follows:

(1) Method 22 shall be used to determine visible emissions.

(2) A thermocouple or any other equivalent device shall be used to monitor the presence of a pilot flame in the flare.

(3) The maximum permitted velocity for air assisted flares shall be computed using the following equation:

$V_{max} = K_1 + K_2 H_T$

Where:

V_{max} = Maximum emitted velocity, m/sec (ft/sec)

H_T = Net heating value of the gas being combusted, MJ/scm (Btu/scf).

K_1 = 8.706 m/sec (metric units)

= 28.56 ft/sec (English units)

K_2 = 0.7084 m 4 /(MJ-sec) (metric units)

= 0.087 ft 4 /(Btu-sec) (English units)

(4) The net heating value (HT) of the gas being combusted in a flare shall be computed using the following equation:

$$H_r = K \sum_{i=1}^{n} C_i \ H_i$$

Where:

K = Conversion constant, 1.740 × 10^7 (g-mole)(MJ)/ (ppm-scm-kcal) (metric units)

= 4.674 × 10^8 [(g-mole)(Btu)/(ppm-scf-kcal)] (English units)

C_i = Concentration of sample component "i," ppm

H_i = net heat of combustion of sample component "i" at 25°C and 760 mm Hg (77 °F and 14.7 psi), kcal/g-mole

(5) Method 18 and ASTM D2504–67, 77, or 88 (Reapproved 1993) (incorporated by reference—see §60.17) shall be used to determine the concentration of sample component "i."

(6) ASTM D2382–76 or 88 or D4809–95 (incorporated by reference—see §60.17) shall be used to determine the net heat of combustion of component "i" if published values are not available or cannot be calculated.

(7) Method 2, 2A, 2C, or 2D, as appropriate, shall be used to determine the actual exit velocity of a flare. If needed, the unobstructed (free) cross-sectional area of the flare tip shall be used.

§ 60.486 Recordkeeping requirements.

(a) (1) Each owner or operator subject to the provisions of this subpart shall comply with the recordkeeping requirements of this section.

(2) An owner or operator of more than one affected facility subject to the provisions of this subpart may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility.

(b) When each leak is detected as specified in §§60.482–2, 60.482–3, 60.482–7, 60.482–8, and 60.483–2, the following requirements apply:

(1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment.

(2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in §60.482–7(c) and no leak has been detected during those 2 months.

(3) The identification on equipment except on a valve, may be removed after it has been repaired.

(c) When each leak is detected as specified in §§60.482–2, 60.482–3, 60.482–7, 60.482–8, and 60.483–2, the following information shall be recorded in a log and shall be kept for 2 years in a readily accessible location:

(1) The instrument and operator identification numbers and the equipment identification number.

(2) The date the leak was detected and the dates of each attempt to repair the leak.

(3) Repair methods applied in each attempt to repair the leak.

(4) “Above 10,000” if the maximum instrument reading measured by the methods specified in §60.485(a) after each repair attempt is equal to or greater than 10,000 ppm.

(5) “Repair delayed” and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

(6) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown.

(7) The expected date of successful repair of the leak if a leak is not repaired within 15 days.

(8) Dates of process unit shutdowns that occur while the equipment is unrepaired.

(9) The date of successful repair of the leak.

(d) The following information pertaining to the design requirements for closed vent systems and control devices described in §60.482–10 shall be recorded and kept in a readily accessible location:

(1) Detailed schematics, design specifications, and piping and instrumentation diagrams.

(2) The dates and descriptions of any changes in the design specifications.

(3) A description of the parameter or parameters monitored, as required in §60.482–10(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring.

(4) Periods when the closed vent systems and control devices required in §§60.482–2, 60.482–3, 60.482–4, and 60.482–5 are not operated as designed, including periods when a flare pilot light does not have a flame.

(5) Dates of startups and shutdowns of the closed vent systems and control devices required in §§60.482–2, 60.482–3, 60.482–4, and 60.482–5.

(e) The following information pertaining to all equipment subject to the requirements in §§60.482–1 to 60.482–10 shall be recorded in a log that is kept in a readily accessible location:

(1) A list of identification numbers for equipment subject to the requirements of this subpart.

(2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of §§60.482–2(e), 60.482–3(i) and 60.482–7(f).

(ii) The designation of equipment as subject to the requirements of §60.482–2(e), §60.482–3(i), or §60.482–7(f) shall be signed by the owner or operator.

(3) A list of equipment identification numbers for pressure relief devices required to comply with §60.482–4.

(4) (i) The dates of each compliance test as required in §§60.482–2(e), 60.482–3(i), 60.482–4, and 60.482–7(f).

(ii) The background level measured during each compliance test.

(iii) The maximum instrument reading measured at the equipment during each compliance test.

(5) A list of identification numbers for equipment in vacuum service.

(f) The following information pertaining to all valves subject to the requirements of §60.482–7(g) and (h) and to all pumps subject to the requirements of §60.482–2(g) shall be recorded in a log that is kept in a readily accessible location:

(1) A list of identification numbers for valves and pumps that are designated as unsafe-to-monitor, an explanation for each valve or pump stating why the valve or pump is unsafe-to-monitor, and the plan for monitoring each valve or pump.

(2) A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve.

(g) The following information shall be recorded for valves complying with §60.483–2:

(1) A schedule of monitoring.

(2) The percent of valves found leaking during each monitoring period.

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

(1) Design criterion required in §§60.482–2(d)(5) and 60.482–3(e)(2) and explanation of the design criterion; and

(2) Any changes to this criterion and the reasons for the changes.

(i) The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in §60.480(d):

(1) An analysis demonstrating the design capacity of the affected facility,

(2) A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol, and

(3) An analysis demonstrating that equipment is not in VOC service.

(j) Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location.

(k) The provisions of §60.7 (b) and (d) do not apply to affected facilities subject to this subpart.

§ 60.487 Reporting requirements.

(a) Each owner or operator subject to the provisions of this subpart shall submit semiannual reports to the Administrator beginning six months after the initial startup date.

(b) The initial semiannual report to the Administrator shall include the following information:

(1) Process unit identification.

(2) Number of valves subject to the requirements of §60.482–7, excluding those valves designated for no detectable emissions under the provisions of §60.482–7(f).

(3) Number of pumps subject to the requirements of §60.482–2, excluding those pumps designated for no detectable emissions under the provisions of §60.482–2(e) and those pumps complying with §60.482–2(f).

(4) Number of compressors subject to the requirements of §60.482–3, excluding those compressors designated for no detectable emissions under the provisions of §60.482–3(i) and those compressors complying with §60.482–3(h).

(c) All semiannual reports to the Administrator shall include the following information, summarized from the information in §60.486:

(1) Process unit identification.

(2) For each month during the semiannual reporting period,

(i) Number of valves for which leaks were detected as described in §60.482(7)(b) or §60.483–2,

(ii) Number of valves for which leaks were not repaired as required in §60.482–7(d)(1),

(iii) Number of pumps for which leaks were detected as described in §60.482–2(b) and (d)(6)(i),

(iv) Number of pumps for which leaks were not repaired as required in §60.482–2(c)(1) and (d)(6)(ii),

(v) Number of compressors for which leaks were detected as described in §60.482–3(f),

(vi) Number of compressors for which leaks were not repaired as required in §60.482–3(g)(1), and

(vii) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible.

(3) Dates of process unit shutdowns which occurred within the semiannual reporting period.

(4) Revisions to items reported according to paragraph (b) if changes have occurred since the initial report or subsequent revisions to the initial report.

(d) An owner or operator electing to comply with the provisions of §§60.483–1 or 60.483–2 shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions.

(e) An owner or operator shall report the results of all performance tests in accordance with §60.8 of the General Provisions. The provisions of §60.8(d) do not apply to affected facilities subject to the provisions of this subpart except that an owner or operator must notify the Administrator of the schedule for the initial performance tests at least 30 days before the initial performance tests.

(f) The requirements of paragraphs (a) through (c) of this section remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected

sources within the State will be relieved of the obligation to comply with the requirements of paragraphs (a) through (c) of this section, provided that they comply with the requirements established by the State.

§ 60.488 Reconstruction.

For the purposes of this subpart:

(a) The cost of the following frequently replaced components of the facility shall not be considered in calculating either the "fixed capital cost of the new components" or the "fixed capital costs that would be required to construct a comparable new facility" under §60.15: pump seals, nuts and bolts, rupture disks, and packings.

(b) Under §60.15, the "fixed capital cost of new components" includes the fixed capital cost of all depreciable components (except components specified in §60.488 (a)) which are or will be replaced pursuant to all continuous programs of component replacement which are commenced within any 2-year period following the applicability date for the appropriate subpart. (See the "Applicability and designation of affected facility" section of the appropriate subpart.) For purposes of this paragraph, "commenced" means that an owner or operator has undertaken a continuous program of component replacement or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of component replacement.

8. P902, DDGSHandling&Cooling

Operations, Property and/or Equipment Description:

DDGS Handling and Cooling controlled with a Baghouse

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)(9), d)(10) and e)(5).

(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)f, c)(1), d)(8), e)(1), e)(4), f)(1)b, f)(1)c, f)(1)l and f)(1)m.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Emissions exhausted from Stack S10 serving this emissions unit shall not exceed: 2.6 lbs/hr of particulate emissions (PE) and emissions of particulate matter less than 10 microns in diameter (PM_{10}); and 5.3 lbs/hr of volatile organic compounds (VOC). Visible particulate emissions from the stack serving this emissions unit shall not exceed 10% opacity as a six-minute average.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	OAC rule 3745-31-05(A)(3)	Emissions exhausted from Stack S70 serving this emissions unit shall not exceed: 0.005 grain of PE per dry standard cubic foot of exhaust gases (gr/dscf); 0.74 lbs/hr of PE and PM_{10}; 2.40 lbs/hr of VOC; and Visible particulate emissions from Stack S70 shall not exceed 5% opacity as a six-minute average. Fugitive emissions shall not exceed: 0.19 lb/hr and 0.82 TPY of PE; 0.088 lb/hr and 0.38 TPY of PM_{10}; and Visible PE of fugitive dust shall not exceed 5% opacity as a three-minute average. The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D).
b.	OAC rule 3745-17-07(A)(1) and OAC rule 3745-17-10(B)(1)	The emission limitations specified by these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
c.	OAC rule 3745-17-07(B)	See b)(2)d.
d.	OAC rule 3745-17-08(B)	See b)(2)e.
e.	ORC 3704.03(F) and OAC rule 3745-114-01	See d)(9), d)(10) and e)(5).
f.	OAC rule 3745-31-05(D) (synthetic minor to avoid TV)	Emissions exhausted from Stack S10 serving this emissions unit shall not exceed: 11.6 tons of PE and PM_{10} per rolling 12-month period;

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
f.	OAC rule 3745-31-05(D) (synthetic minor to avoid TV)	23.1 tons of VOC per rolling 12-month period; 3.34 tons of single HAP per rolling 12-month period; and 8.33 tons of combined HAPs per rolling 12-month period. <u>Emissions exhausted from Stack S70 serving this emissions unit shall not exceed:</u> 3.23 tons of PE and PM_{10} per rolling 12-month period; and 10.51 tons of VOC per rolling 12-month period.

(2) Additional Terms and Conditions

a. A fraction of the emissions from this source are vented to B001 and/or B002. The remaining fraction of emissions is vented to Stack S70 associated with this emissions unit.

b. Emissions from B001, B002, P005, P007, P008, P009, P010, P011, P013 (except emissions vented to the flare Stack S60) and P902 (except emissions vented to Stack S70) are vented to a common stack identified as Stack S10.

c. The rolling 12-month allowable emission rates are based on the annual production of 132,000,000 gallons of denatured ethanol.

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. The facility 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. This emissions unit is permitted at its potential to emit, as defined in OAC rule 3745-31-01, for all pollutants.

g. Best available technology (BAT) control requirements for this emissions unit has been determined to be the following:

i. the use of the natural gas-fired thermal oxidizers to control VOC emissions that are not vented to Stack S70, at 98% ;

ii. maintain enclosures and vent emissions not vented to Stack S70 to the thermal oxidizers to ensure compliance; and

iii. maintain enclosures and vent emissions to a baghouse with an outlet particulate emissions concentration of 0.005 gr/dscf.

BAT also includes compliance with the terms and conditions of this permit. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

c) Operational Restrictions

(1) The annual amount of dried distillers grain soluables (DDGS) produced from this emissions unit shall not exceed 420,225 tons, based upon a rolling, 12-month summation of the DDGS production.

d) Monitoring and/or Recordkeeping Requirements

(1) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable average combustion temperature within the thermal oxidizer, for any 3-hour block of time when the emissions unit controlled by the thermal oxidizer is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit was in compliance.

(2) The permittee shall properly install, operate, and maintain a continuous temperature monitor and recorder that measures and records the combustion temperature within the thermal oxidizer when the emissions unit is in operation, including periods of startup and shutdown. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within ± 1 percent of the temperature being measured or ± 5 degrees Fahrenheit, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manuals, with any modifications deemed necessary by the permittee. The permittee shall collect and record the following information each day the emissions unit is in operation:

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

b. a log (date and total time) of the downtime or bypass of the capture (collection) system and thermal oxidizer, and/or downtime of the monitoring equipment, when the associated emissions unit was in operation.

These records shall be maintained at the facility for a period of three years.

(3) Whenever the monitored average combustion temperature within the thermal oxidizer deviates from the limit established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

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

a. a description of the corrective action;

b. the date corrective action 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 temperature readings immediately after the corrective action was implemented; and

f. the name(s) of the personnel who performed the work.

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

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

(4) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across each baghouse is between 0.25 to 8 inches of water (manufacturer's specifications).

(5) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across each baghouse when the controlled emissions unit is in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across each baghouse on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

Whenever the monitored value for the pressure drop deviates from the limit or range established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

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

a. a description of the corrective action;

b. the date corrective action 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 pressure drop readings immediately after the corrective action was implemented; and

f. the name(s) of the personnel who performed the work.

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

This range or limit on the pressure drop across each baghouse 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 limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or 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.

(6) 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 stacks serving this emissions unit (Stacks S10 and S70). The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

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

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

(7) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive emissions from the egress points (i.e. building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log, including 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. 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.

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

a. the operating hours for each month;

b. the DDGS production rate for each month, in tons;

c. the PE, PM_{10} and VOC emissions exhausted from Stack S10, in tons;

d. the PE, PM_{10} and VOC emissions exhausted from Stack S70, in tons;

e. the rolling, 12-month summation of the DDGS production, in tons;

f. the rolling, 12-month summation of PE, PM_{10} and VOC emissions exhausted from Stack S10, in tons, in tons; and

g. the rolling, 12-month summation of PE, PM_{10} and VOC emissions exhausted from Stack S70, in tons.

(9) The permit to install and operate (PTIO) for this emissions unit was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the PTIO application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied to this emissions unit for each toxic pollutant, using data from the PTIO application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Acetaldehyde

TLV (mg/m^3): 33.20

Maximum Hourly Emission Rate (lbs/hr): 0.40

Predicted 1-Hour Maximum Ground-Level Concentration ($\mu g/m^3$): 61.20 (entire facility)

MAGLC ($\mu g/m^3$): 790

Pollutant: Formaldehyde

TLV (mg/m^3): 0.272

Maximum Hourly Emission Rate (lbs/hr): 0.48

Predicted 1-Hour Maximum Ground-Level Concentration ($\mu g/m^3$): 5.05 (entire facility)

MAGLC ($\mu g/m^3$): 6.47

(10) The above described evaluation determined that the maximum ground level concentration for the new or modified source was less than 80% of the MAGLC. Per ORC 3704.03(F)(4)(b), the owner or operator shall submit an annual report that describes any changes to the emissions unit that affect the air toxic modeling. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");

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

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

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 average combustion temperature within the thermal oxidizer was outside of the acceptable range;

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

iii. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;

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

v. all exceedances of the rolling, 12-month limitation of the DDGS production;

vi. all exceedances of the rolling, 12-month PE, PM_{10} and VOC emissions limitation for emissions exhausted from Stack S10; and

vii. all exceedances of the rolling, 12-month PE, PM_{10} and VOC emissions limitation for emissions exhausted from Stack S70.

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

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

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

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

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

(2) The permittee shall identify the following information in the annual permit evaluation report in accordance with the monitoring requirements for visible emissions in d)(6) above:

a. all days during which any visible particulate emissions were observed from the stacks serving this emissions unit (Stacks S10 and S70); and

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

(3) The permittee shall identify the following information in the annual permit evaluation report in accordance with the monitoring requirements for visible emissions in d)(7) above:

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

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

(4) The permittee shall submit annual reports which specify the total PE, PM_{10} and VOC emissions exhausted from Stack S10 and the total PE, PM_{10} and VOC emissions exhausted from Stack S70 for the previous calendar year. This report shall be submitted by April 15 of each year. This requirement may be satisfied by including and identifying the specific emissions data from these emissions units in the annual Fee Emission Report.

(5) The permittee shall submit annual reports that describe any changes to this emissions unit which affect the air toxic modeling. If no changes were made during the year, then a report shall be submitted stating that no changes were made. This report is due by January 31 of each year and shall cover the previous calendar year.

(6) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall

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

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) shall be determined in accordance with the following methods:

a. Emissions Limitation

Emissions exhausted from Stack S10 serving this emissions unit shall not exceed:

2.6 lbs/hr of PE and PM_{10}; and

5.3 lbs/hr of VOC.

Applicable Compliance Method

Compliance shall be demonstrated through performance testing as described in the requirements for emissions units B001 and B002.

b. Emissions Limitation

Emissions exhausted from Stack S10 serving this emissions unit shall not exceed:

11.6 tons of PE and PM_{10} per rolling 12-month period; and

23.1 tons of VOC per rolling 12-month period.

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements in d)(8) and shall be calculated by multiplying the hourly emission rate by the annual operating hours and dividing by 2,000 pounds/ton.

c. Emissions Limitation

Emissions exhausted from Stack S10 serving this emissions unit shall not exceed:

3.34 tons of single HAP per rolling 12-month period; and

8.33 tons of combined HAPs per rolling 12-month period.

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements in d)(8) and shall be calculated by multiplying the hourly emission rate for each individual HAP by the annual operating hours and dividing by 2,000 pounds/ton. The hourly emissions rate of each individual HAP shall be determined through

performance testing as described in the requirements for emissions units B001 and B002.

To determine the annual emissions rate for combined HAPs, sum the annual emissions calculated above for each individual HAP.

d. Emissions Limitation

Visible PE from Stack S10 serving this emissions unit shall not exceed 10% opacity as a six-minute average.

Applicable Compliance Method

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

e. Emission Limitation

Emissions exhausted from Stack S70 shall not exceed:

0.005 grain of PE per dry standard cubic foot of exhaust gases (gr/dscf);

0.74 lbs/hr of PE and PM_{10}; and

2.40 lbs/hr of VOC

Applicable Compliance Method

Compliance shall be determined through the performance testing as described in f)(2). Compliance with the allowable lb PM_{10}/hr limitation is assumed with compliance of the lb PE/hr limitation.

f. Emissions Limitation

Visible particulate emissions from Stack S70 shall not exceed 5% opacity as a six-minute average.

Applicable Compliance Method

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

g. Emissions Limitation

Fugitive PE shall not exceed 0.19 lb/hr.

Applicable Compliance Method

Compliance shall be calculated using AP-42 Table 9.9.1-1 (March 2003) for the fugitive grain handling emissions, AP-42 Table 9.9.1-2 (March 2003) for the

fugitive dried distillers grain (DDGS) stockpile loading handling emissions and inputs representing the Potential To Emit (PTE), as follows:

Emissions = (grain throughput) * (handling emission factor + DDGS emission factor) * (1 - enclosure control efficiency)

Emissions = (48 tons/hr) * (0.061 lb/ton grain + 0.017 lb/ton grain) * (1 - 95%)

Emissions = 0.19 lb/hr

h. Emissions Limitation

Fugitive PE shall not exceed 0.82 TPY.

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements in d)(8) and shall be calculated using AP-42 Table 9.9.1-1 (March 2003) for the fugitive grain handling emissions and AP-42 Table 9.9.1-2 (March 2003) for the fugitive DDGS stockpile loading handling emissions, as follows:

Emissions = (DDGS throughput) * (handling emission factor + DDGS emission factor) * (1 - enclosure control efficiency) / (2000 lbs/ton)

Emissions = (DDGS throughput in tons per year) * (0.061 lb/ton grain + 0.017 lb/ton grain) * (1 - 95%) / (2000 lbs/ton)

i. Emissions Limitation

Fugitive PM_{10} emissions shall not exceed 0.088 lb/hr.

Applicable Compliance Method

Compliance shall be calculated using AP-42 Table 9.9.1-1 (March 2003) for the fugitive grain handling emissions, AP-42 Table 9.9.1-2 (March 2003) for the fugitive DDGS stockpile loading handling emissions and inputs representing the Potential To Emit (PTE), as follows:

Emissions = (grain throughput) * (handling emission factor + DDGS emission factor) * (1 - enclosure control efficiency)

Emissions = (48 tons/hr) * (0.034 lb/ton grain + 0.0025 lb/ton grain) * (1 - 95%)

Emissions = 0.088 lb/hr

j. Emissions Limitation

Fugitive PM_{10} emissions shall not exceed 0.38 TPY.

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements in d)(8) and shall be calculated using AP-42 Table 9.9.1-1 (March 2003) for the fugitive grain handling emissions and AP-42 Table 9.9.1-2 (March 2003) for the fugitive DDGS stockpile loading handling emissions, as follows:

Emissions = (DDGS throughput) * (handling emission factor + DDGS emission factor) * (1 - enclosure control efficiency) / (2000 lbs/ton)

Emissions = (DDGS throughput in tons per year) * (0.034 lb/ton grain + 0.0025 lb/ton grain) * (1 - 95%) / (2000 lbs/ton)

k. Emission Limitation

Visible PE of fugitive dust shall not exceed 5% opacity as a three-minute average.

Applicable Compliance Method

If required, compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(3).

l. Emission Limitation

Emissions exhausted through Stack S70 after control shall not exceed 3.23 tons of PE and PM_{10} per rolling 12-month period.

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements in d)(8) and shall be calculated using the baghouse exhaust grain loading from Stack S70, as follows:

Stack S70 Emissions = (exhaust PE concentration) * (exhaust flow rate) * (60 min/hr) * (annual operating hours) / (7000 gr/lb) / (2000 lbs/ton)

Stack S70 Emissions = (PE in gr/dscf from most recent emissions test) * (17,208 dscf/min) * (60 min/hr) * (annual operating hours) / (7000 gr/lb) / (2000 lbs/ton)

m. Emission Limitation

VOC emissions from Stack S70 shall not exceed 10.51 tons per rolling 12-month period.

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements in d)(8) and shall be calculated by multiplying the hourly emission rate by the annual operating hours and dividing by 2,000 pounds/ton.

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

a. The emission testing shall be conducted between the months of May and September calendar year 2013.

b. The emission testing shall be conducted to:

i. demonstrate compliance with the outlet concentration of 0.005 gr PE/dscf for Stack S70;

ii. demonstrate compliance with the allowable emissions rate for PE of 0.74 lb/hr for Stack S70; and

iii. demonstrate compliance with the allowable emissions rate for VOC of 2.40 lb/hr for Stack S70

Note, for the emissions exhausted from Stack S10, compliance shall be demonstrated through performance testing as described in the requirements for emissions units B001 and B002.

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

i. Methods 1 through 4 from 40 CFR Part 60, Appendix A for velocity traverses, velocity and volumetric flow rates, gas analysis, and moisture content;

ii. Method 5 of 40 CFR Part 60, Appendix A for filterable PE; and

iii. Methods 18 or 320 from 40 CFR Part 60, Appendix A for total VOC (including, but not limited to, acetaldehyde, acetic acid, ethanol, formaldehyde, formic acid, 2-furaldehyde, methanol and acrolein*)

* With prior approval from the Regional Air Pollution Control Agency, the permittee may perform pre-screening to determine which VOC and HAPs should be tested.

Alternative U.S. EPA approved test methods may be used with prior approval from the Regional Air Pollution Control Agency.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

e. Not later than 60 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).

f. 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.

g. 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) The requirements of this permit supersede the requirements of PTI 08-04878 for this emissions unit, issued April 22, 2008 and represent no increase in emissions for this emissions unit.

9. P903, DDGSLoadout

Operations, Property and/or Equipment Description:

DDGS Loadout to Truck and Rail controlled with a Baghouse

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)b, c)(1), d)(4), e)(1), e)(3) and f)(1)c.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	Particulate emissions (PE) and emissions of particulate matter less than 10 microns in diameter (PM_{10}) from the stack servicing this emissions unit shall not exceed 0.39 lb/hr. Fugitive PE shall not exceed 0.035 tons per rolling 12-month period. Fugitive PM_{10} emissions shall not exceed 0.0084 tons per rolling 12-month period. See b)(2)f.
b.	OAC rule 3745-31-05(D) (synthetic minor to avoid TV) and OAC rule 3745-31-05(E), as effective 12/01/06 (synthetic minor to avoid BAT)	PE and PM_{10} emissions from the stack servicing this emissions unit shall not exceed 1.71 tons per rolling 12-month period. See b)(2)b.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-31-05(E), as effective 12/01/06 (synthetic minor to avoid BAT)	Fugitive PE shall not exceed 0.035 tons per rolling 12-month period. Fugitive PM_{10} emissions shall not exceed 0.0084 tons per rolling 12-month period. See b)(2)b.
d.	OAC rule 3745-17-07(A)	Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except for one 6-minute period per hour of not more than 60% opacity.
e.	OAC rule 3745-17-07(B)	See b)(2)c.
f.	OAC rule 3745-17-08(B)	See b)(2)d.
g.	OAC rule 3745-17-11(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3), as effective 11/30/01. See b)(2)g.
h.	OAC rule 3745-17-11(B)(1)	PE from the stack serving this emissions unit shall not exceed 2.18 lbs/hr. See b)(2)h.

(2) Additional Terms and Conditions

a. The rolling 12-month allowable emission rates are based on the annual production of 132,000,000 gallons of denatured ethanol.

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

Permit to Install and Operate P0104717 for this air contaminant source takes into account the use of a baghouse, whenever this air contaminant source is in operation, with an outlet particulate emissions concentration of 0.005 gr/dscf, as a voluntary restriction as proposed by the permittee. This restriction allows the permittee to avoid Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3).

c. 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).

d. The facility 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).

e. This emissions unit is permitted at its potential to emit, as defined in OAC rule 3745-31-01, for all pollutants.

f. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to the Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 changes), such that BAT is no longer required by State regulations for National Ambient Air Quality Standards (NAAQS) pollutant(s) less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limitations/control measures no longer apply.

g. This limitation reflects the current State Implementation Plan (SIP) for Ohio approved by the U.S. EPA for OAC rule 3745-31-05, as indicated in b)(2)f above. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then this emission limitation no longer applies.

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

c) Operational Restrictions

(1) The annual amount of dried distillers grain soluables (DDGS) processed through this emissions unit shall not exceed 420,225 tons, based upon a rolling, 12-month summation of the DDGS production.

d) Monitoring and/or Recordkeeping Requirements

(1) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across the baghouse is between 0.25 to 8 inches of water (manufacturer's specifications).

(2) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit is in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

Whenever the monitored value for the pressure drop deviates from the limit or range established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

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

a. a description of the corrective action;

b. the date corrective action 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 pressure drop readings immediately after the corrective action was implemented; and

f. the name(s) of the personnel who performed the work.

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

This range or limit on the pressure drop across the baghouse 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 limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit. In addition, approved revisions to the range or 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) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be

noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

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

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

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

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

a. the operating hours for each month;

b. the DDGS production rate for each month, in tons;

c. the PE and PM_{10} emissions, in tons;

d. the rolling, 12-month summation of the DDGS production, in tons; and

e. the rolling, 12-month summation of PE and PM_{10} emissions, in tons.

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 pressure drop across the baghouse was outside of the acceptable range;

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

iii. all exceedances of the rolling, 12-month limitation of the DDGS production; and

iv. all exceedances of the rolling, 12-month PE and PM_{10} emissions limitations.

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

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

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

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

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

(2) The permittee shall identify the following information in the annual permit evaluation report in accordance with the monitoring requirements for visible emissions in d)(3) above:

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

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

(3) The permittee shall submit annual reports which specify the total PE and PM_{10} emissions in tons per rolling 12-month period from this emissions unit for the previous calendar year. This report shall be submitted by April 15 of each year. This requirement may be satisfied by including and identifying the specific emissions data from these emissions units in the annual Fee Emission Report.

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

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) shall be determined in accordance with the following methods:

a. Emission Limitation

PE from the stack serving this emissions unit shall not exceed 2.18 lbs/hr.

Applicable Compliance Method

Compliance with the allowable lb PE/hr shall be determined through the performance testing as described in f)(2).

b. Emission Limitation

PE and PM_{10} emissions from the stack servicing this emissions unit shall not exceed 0.39 lb/hr.

Applicable Compliance Method

Compliance shall be determined using the baghouse exhaust grain loading and inputs representing the Potential to Emit (PTE), as follows:

Emissions = (exhaust PE/PM_{10} concentration) * (exhaust flow rate) * (60 min/hr) / (7000 gr/lb)

Emissions = (PE/PM_{10} in gr/dscf from most recent emissions test) * (9,100 dscf/min) * (60 min/hr) / (7000 gr/lb)

The baghouse outlet PE concentration shall be determined through the performance testing as described in f)(2).

PM_{10} emissions from the baghouse are assumed to be equal to PE from the baghouse. Compliance with the allowable PM_{10} baghouse exhaust concentration is assumed with compliance of the PE baghouse exhaust concentration.

c. Emission Limitation

PE and PM_{10} emissions from the stack servicing this emissions unit shall not exceed 1.71 tons per rolling 12-month period.

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements in d)(4) and shall be calculated using the baghouse exhaust grain loading, as follows:

Emissions = (exhaust PE/PM_{10} concentration) * (exhaust flow rate) * (60 min/hr) * (annual operating hours) / (7000 gr/lb) / (2000 lbs/ton)

Emissions = (PE/PM_{10} in gr/dscf from most recent emissions test) * (9,100 dscf/min) * (60 min/hr) * (annual operating hours) / (7000 gr/lb) / (2000 lbs/ton)

The baghouse outlet PE concentration shall be determined through the performance testing as described in f)(2).

PM_{10} emissions from the baghouse are assumed to be equal to PE from the baghouse. Compliance with the allowable PM_{10} baghouse exhaust concentration is assumed with compliance of the PE baghouse exhaust concentration.

d. Emission Limitation

Fugitive PE shall not exceed 0.035 tons per rolling 12-month period.

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements in d)(4) and shall be calculated using AP-42 Table 9.9.1-2 (March 2003) for the fugitive emissions, as follows:

Emissions = (DDGS throughput) * (emission factor) * (1 - enclosure control efficiency) / (2000 lbs/ton)

Emissions = (DDGS throughput in tons per rolling 12-month period) * (0.0033 lb/ton grain) * (1 - 95%) / (2000 lbs/ton)

e. Emission Limitation

Fugitive PM10 emissions shall not exceed 0.0084 tons per rolling 12-month period.

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements in d)(4) and shall be calculated using AP-42 Table 9.9.1-2 (March 2003) for the fugitive emissions, as follows:

Emissions = (DDSG throughput) * (emission factor) * (1 - enclosure control efficiency) / (2000 lbs/ton)

Emissions = (DDGS throughput in tons per rolling 12-month period) * (0.0008 lb/ton grain) * (1 - 95%) / (2000 lbs/ton)

f. Emission Limitation

Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except for one 6-minute period per hour of not more than 60% opacity.

Applicable Compliance Method

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

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

a. The emission testing shall be conducted between the months of May and September calendar year 2013.

b. The emission testing shall be conducted to:

   i. demonstrate compliance with the outlet concentration of 0.005 gr PE/dscf; and

   ii. demonstrate compliance with the allowable emissions rate for PE of 2.18 lbs/hr

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

   i. Methods 1 through 4 from 40 CFR Part 60, Appendix A for velocity traverses, velocity and volumetric flow rates, gas analysis, and moisture content;

   ii. Method 5 of 40 CFR Part 60, Appendix A for filterable PE; and

   Alternative U.S. EPA approved test methods may be used with prior approval from the Regional Air Pollution Control Agency.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

e. Not later than 60 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).

f. 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.

g. 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) The requirements of this permit supersede the requirements of PTI 08-04878 for this emissions unit, issued April 22, 2008 and represent no increase in emissions for this emissions unit.

10. T003, GasolineDenatTK

Operations, Property and/or Equipment Description:

200,000 gallon Above Ground Internal Floating Roof Storage Tank (Gasoline Denaturant 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)b, c)(2), d)(1), e)(1) and f).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	Volatile organic compound (VOC) emissions shall not exceed 1.29 tons per rolling 12-month period. The requirement of this rule includes compliance with requirements of OAC rule 3745-21-09(L) and 40 CFR Part 60, Subpart Kb. See b)(2)e.
b.	OAC rule 3745-31-05(D) (synthetic minor to avoid TV)	VOC emissions shall not exceed 1.29 tons per rolling 12-month period.
c.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/06	See b)(2)b.
d.	OAC rule 3745-21-09(L)	See b)(2)c.
e.	40 CFR Part 60, Subpart Kb	See b)(2)d, d)(1) through d)(6), e)(1) and

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		e)(2).

(2) Additional Terms and Conditions

a. The potential emissions are based on the annual production of 132,000,000 gallons of denatured ethanol.

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

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the uncontrolled emissions from this air contaminant source since the potential to emit is less than ten tons per year.

c. The permittee shall install the following control equipment and shall maintain tank vents, seals, and or covers as follows:

i. The fixed roof storage tank shall be equipped with an internal floating roof.

ii. 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 present, shall be set to open or at the manufacturer's recommended setting when the roof is being floated off the roof leg supports.

iii. 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.

d. Per 40 CFR Part 60, Subpart Kb, the fixed-roof vessel, equipped with an internal floating roof, must meet the following specifications:

i. 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 all 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.

ii. 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:

(a) 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.

(b) 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.

(c) 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.

iii. Each opening in a noncontact 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.

iv. 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.

v. 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.

vi. 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.

vii. 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.

viii. 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.

ix. Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

e. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to the Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 changes), such that

BAT is no longer required by State regulations for National Ambient Air Quality Standards (NAAQS) pollutant(s) less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limitations/control measures no longer apply.

c) Operational Restrictions

(1) This above-ground storage tank shall only be used to store gasoline.

(2) The annual gasoline throughput for this emissions unit shall not exceed 6,285,714 gallons based upon a rolling, 12-month summation of the gasoline throughput.

d) Monitoring and/or Recordkeeping Requirements

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

a. the gasoline throughput for each month, in gallons; and

b. the rolling, 12-month summation of the gasoline throughput, in gallons.

(2) The permittee shall maintain records of the following information in a readily accessible location for at least five years and shall make copies of the records available upon request:

a. the types of petroleum liquids stored in the tank; and

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 1.0 pound per square inch absolute.

(3) The permittee shall 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 the volatile organic liquid (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.

(4) If the vessel is 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 Regional Air Pollution Control Agency in the

inspection report required in e)(3)c. 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.

(5) If the vessel is equipped with a double-seal system as specified in b)(2)d.ii.(b), the permittee shall:

a. visually inspect the vessel as specified in d)(6) at least every 5 years; or

b. visually inspect the vessel as specified in d)(4).

(6) 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)(4) and d)(5)b and at intervals no greater than 5 years in the case of vessels specified in d)(5)a.

(7) The permittee shall keep the following records per 40 CFR Part 60, Subpart Kb:

a. the dimension of the storage vessel and an analysis showing the capacity of the storage vessel, kept for the life of the source; and

b. a record of the volatile organic liquid (VOL) stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period, kept for at least 2 years.

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.

(8) The permittee shall maintain a record of any period of time in which the automatic bleeder vents, rim vents, and all openings other than stub drains were not maintained as required in this permit.

(9) The permittee shall maintain monthly records of the rolling, 12-month summation of VOC emissions from this emissions unit, in tons.

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 gasoline throughput.

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

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

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

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

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

(2) The permittee shall notify the Regional Air Pollution Control Agency in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by d)(3) and d)(6) to afford the Regional Air Pollution Control Agency the opportunity to have an observer present. If the inspection required by d)(6) is not planned and the permittee could not have known about the inspection 30 days in advance or refilling the tank, the permittee shall notify the Regional Air Pollution Control Agency 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 Regional Air Pollution Control Agency at least 7 days prior to the refilling.

(3) After installation of this emissions unit with its associated control equipment (fixed roof and internal floating roof), the permittee shall meet the following requirements:

a. furnish the Regional Air Pollution Control Agency with a report that describes the control equipment and certifies that the control equipment meets the specifications of 40 CFR Part 60, Subpart Kb. This report shall be an attachment to the notification required by 40 CFR 60.7(a)(3);

b. keep a record of each inspection performed as required in d)(3) through d)(6). 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);

c. if any of the conditions described in d)(4) are detected during the annual visual inspection required by d)(4), a report shall be furnished to the Regional Air Pollution Control Agency 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; and

d. after each inspection required by d)(5) 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)(5)b, a report shall be furnished to the Regional Air Pollution Control Agency within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of d)(3) and d)(5) and list each repair made.

The permittee shall keep copies of all reports and records required by e)(3) for at least 2 years.

(4) The permittee shall notify the Regional Air Pollution Control Agency within 30 days of the occurrence, of any period of time in which the automatic bleeder vents, rim vents, and all openings other than stub drains were not maintained as required in this permit.

(5) The permittee shall submit annual reports which specify the total VOC emissions in tons per rolling 12-month period from this emissions unit for the previous calendar year. This report shall be submitted by April 15 of each year. This requirement may be satisfied by including and identifying the specific emissions data from these emissions units in the annual Fee Emission Report.

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

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) shall be determined in accordance with the following methods:

a. <u>Emission Limitation</u>

VOC emissions shall not exceed 1.29 tons per rolling 12-month period.

<u>Applicable Compliance Method</u>

Compliance with the annual VOC emissions limitation is based on compliance with the gasoline throughput limitation.

g) Miscellaneous Requirements

(1) The requirements of this permit supersede the requirements of PTI 08-04878 for this emissions unit, issued April 22, 2008 and represent no increase in emissions for this emissions unit.

11. Emissions Unit Group - Cook, Yeast, Distill & Dehydrate: P005, P007,

EU ID	Operations, Property and/or Equipment Description
P005	Mash and Yeast Operations Controlled with Recuperative Thermal Oxidizers
P007	Distillation and Dehydration Controlled with Recuperative Thermal Oxidizers

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)d, d)(5), d)(6) and e)(3).

(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)d, c)(1), d)(4), e)(1), e)(2), f)(1)b and f)(1)c.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Emissions exhausted from Stack S10 serving this emissions unit shall not exceed 5.3 lbs/hr of volatile organic compounds (VOC). The requirements of this rule also include compliance with the requirements of OAC rules 3745-21-09(DD), 3745-31-05(D) and 40 CFR Part 60, Subpart VV.
b.	OAC rule 3745-21-09(DD) and 40 CFR Part 60, Subpart VV	See the requirements for emissions unit P801.
c.	ORC 3704.03(F) and OAC rule 3745-114-01	See d)(5), d)(6) and e)(3).

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-31-05(D) (synthetic minor to avoid TV)	Emissions exhausted from Stack S10 serving this emissions unit shall not exceed: 23.1 tons of VOC per rolling 12-month period; 3.34 tons of single HAP per rolling 12-month period; and 8.33 tons of combined HAPs per rolling 12-month period.

(2) Additional Terms and Conditions

a. Emissions from B001, B002, P005, P007, P008, P009, P010, P011, P013 (except emissions vented to the flare Stack S60) and P902 (except emissions vented to Stack S70) are vented to a common stack identified as Stack S10.

b. The rolling 12-month allowable emission rates are based on the annual production of 132,000,000 gallons of denatured ethanol.

c. This emissions unit is permitted at its potential to emit, as defined in OAC rule 3745-31-01, for all pollutants.

d. Best available technology (BAT) control requirements for this emissions unit has been determined to be the following:

i. implementation of a fugitive leak detection and repair program (LDAR) for all the miscellaneous process equipment associated with this emissions unit;

ii. the use of the natural gas-fired thermal oxidizers to control VOC at 98%; and

iii. maintain enclosures and vent all the emissions to the thermal oxidizers to ensure compliance.

BAT also includes compliance with the terms and conditions of this permit. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

e. The permittee shall include the appropriate process equipment and regulated components in a site fugitive Leak Detection and Repair (LDAR) program. The LDAR program shall comply with the appropriate provisions (includes operational restrictions, monitoring and recordkeeping, reporting, and testing) of OAC rule

3745-21-09(DD) Leaks from process units that produce organic chemicals, and 40 CFR 60 Subpart VV (Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry).

f. Emissions unit P005 consists of a cook water tank (negligible emissions), slurry blender/mixer (not vented but connected to the slurry tanks which vent to the thermal oxidizer, TO), two slurry tanks (vent to TO), two cook tubes (not vented), flash tank (not vented), two liquefaction tanks (negligible emissions), two yeast tanks (vent to TO), CIP screen (vent to TO), acid wash tank (vent to TO) and other ancillary equipment and tanks.

g. Emissions unit P007 consists of a beer column (not vented), side stripper (not vented), rectifier column (not vented), 190 proof condenser (not vented), reflux tank (not vented), regen tank (vent to TO), molecular sieve (not vented), eight evaporators (not vented), six centrifuges (vent to TO), two centrate tanks (vent to TO), syrup tank (negligible emissions), thin stillage tank (negligible emissions), whole stillage tank (negligible emissions) and other ancillary equipment and tanks.

c) Operational Restrictions

(1) The annual amount of undenatured ethanol produced from this emissions unit shall not exceed 125,710,000 gallons, based upon a rolling, 12-month summation of the undenatured ethanol production.

d) Monitoring and/or Recordkeeping Requirements

(1) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable average combustion temperature within the thermal oxidizer, for any 3-hour block of time when the emissions unit controlled by the thermal oxidizer is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit was in compliance.

(2) The permittee shall properly install, operate, and maintain a continuous temperature monitor and recorder that measures and records the combustion temperature within the thermal oxidizer when the emissions unit is in operation, including periods of startup and shutdown. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within ± 1 percent of the temperature being measured or ± 5 degrees Fahrenheit, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manuals, with any modifications deemed necessary by the permittee. The permittee shall collect and record the following information each day the emissions unit is in operation:

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

b. a log (date and total time) of the downtime or bypass of the capture (collection) system and thermal oxidizer, and/or downtime of the monitoring equipment, when the associated emissions unit was in operation.

These records shall be maintained at the facility for a period of three years.

(3) Whenever the monitored average combustion temperature within the thermal oxidizer deviates from the limit established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

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

a. a description of the corrective action;

b. the date corrective action 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 temperature readings immediately after the corrective action was implemented; and

f. the name(s) of the personnel who performed the work.

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

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

relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

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

a. the operating hours for each month;

b. the undenatured ethanol production rate for each month, in gallons;

c. the VOC, single HAP and combined HAP emissions exhausted from Stack S10, in tons;

d. the rolling, 12-month summation of the undenatured ethanol production, in gallons; and

e. the rolling, 12-month summation of VOC, single HAP and combined HAP emissions exhausted from Stack S10, in tons.

(5) The permit to install and operate (PTIO) for this emissions unit was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the PTIO application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied to this emissions unit for each toxic pollutant, using data from the PTIO application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Acetaldehyde

TLV (mg/m^3): 33.20

Maximum Hourly Emission Rate (lbs/hr): 0.40

Predicted 1-Hour Maximum Ground-Level Concentration ($\mu g/m^3$): 61.20 (entire facility)

MAGLC ($\mu g/m^3$): 790

Pollutant: Formaldehyde

TLV (mg/m^3): 0.272

Maximum Hourly Emission Rate (lbs/hr): 0.48

Predicted 1-Hour Maximum Ground-Level Concentration ($\mu g/m^3$): 5.05 (entire facility)

MAGLC ($\mu g/m^3$): 6.47

(6) The above described evaluation determined that the maximum ground level concentration for the new or modified source was less than 80% of the MAGLC. Per ORC 3704.03(F)(4)(b), the owner or operator shall submit an annual report that describes any changes to the emissions unit that affect the air toxic modeling. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");

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

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

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 average combustion temperature within the thermal oxidizer was outside of the acceptable range;

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

iii. all exceedances of the rolling, 12-month limitation of the undenatured ethanol production; and

iv. all exceedances of the rolling, 12-month VOC, single HAP and combined HAP emissions limitation for emissions exhausted from Stack S10.

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

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

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

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

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

(2) The permittee shall submit annual reports which specify the total VOC, single HAP and combined HAP emissions exhausted from Stack S10 for the previous calendar year. This report shall be submitted by April 15 of each year. This requirement may be satisfied by including and identifying the specific emissions data from these emissions units in the annual Fee Emission Report.

(3) The permittee shall submit annual reports that describe any changes to this emissions unit which affect the air toxic modeling. If no changes were made during the year, then a report shall be submitted stating that no changes were made. This report is due by January 31 of each year and shall cover the previous calendar year.

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

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) shall be determined in accordance with the following methods:

a. Emissions Limitation

Emissions exhausted from Stack S10 serving this emissions unit shall not exceed 5.3 lbs/hr of VOC.

Applicable Compliance Method

Compliance shall be demonstrated through performance testing as described in the requirements for emissions units B001 and B002.

b. Emissions Limitation

Emissions exhausted from Stack S10 serving this emissions unit shall not exceed 23.1 tons of VOC per rolling 12-month period.

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements in d)(4) and shall be calculated by multiplying the hourly emission rate by the annual operating hours and dividing by 2,000 pounds/ton.

c. Emissions Limitation

Emissions exhausted from Stack S10 serving this emissions unit shall not exceed:

3.34 tons of single HAP per rolling 12-month period; and

8.33 tons of combined HAPs per rolling 12-month period.

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements in d)(5) and shall be calculated by multiplying the hourly emission rate for each individual HAP by the annual operating hours and dividing by 2,000 pounds/ton. The hourly emissions rate of each individual HAP shall be determined through performance testing as described in the requirements for emissions units B001 and B002.

To determine the annual emissions rate for combined HAPs, sum the annual emissions calculated above for each individual HAP.

g) Miscellaneous Requirements

(1) The requirements of this permit supersede the requirements of PTI 08-04878 for this emissions unit, issued April 22, 2008 and represent no increase in emissions for this emissions unit.

12. Emissions Unit Group - DDGS Dryers: P008, P009, P010, P011,

EU ID	Operations, Property and/or Equipment Description
P008	45 mmBtu/hr DDGS Dryer No. 1 controlled with a Recuperative Thermal Oxidizer
P009	45 mmBtu/hr DDGS Dryer No. 2 controlled with a Recuperative Thermal Oxidizer
P010	45 mmBtu/hr DDGS Dryer No. 3 controlled with a Recuperative Thermal Oxidizer
P011	45 mmBtu/hr DDGS Dryer No. 4 controlled with a Recuperative 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)d, d)(9), d)(10) and e)(6).

(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)e, c)(2), d)(8), e)(2), e)(5), f)(1)c, f)(1)d and f)(1)e.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Emissions exhausted from Stack S10 serving this emissions unit shall not exceed: 20.0 lbs/hr of carbon monoxide (CO); 21.2 lbs/hr of nitrogen oxides (NO_X); 21.9 lbs/hr of sulfur dioxide (SO_2); 2.6 lbs/hr of particulate emissions (PE) and emissions of particulate matter less than 10 microns in diameter (PM_{10}); and 5.3 lbs/hr of volatile organic compounds (VOC).

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Visible particulate emissions from the stack serving this emissions unit shall not exceed 10% opacity as a six-minute average. The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D).
b.	OAC rule 3745-17-07(A)(1) and OAC rule 3745-17-10(B)(1)	The emission limitations specified by these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
c.	OAC rule 3745-18-06	See b)(2)b.
d.	ORC 3704.03(F) and OAC rule 3745-114-01	See d)(9), d)(10) and e)(6).
e.	OAC rule 3745-31-05(D) (synthetic minor to avoid TV)	Emissions exhausted from Stack S10 serving this emissions unit shall not exceed: 87.6 tons of CO per rolling 12-month period; 92.9 tons of NO_X per rolling 12-month period; 95.7 tons of SO_2 per rolling 12-month period; 11.6 tons of PE and PM_{10} per rolling 12-month period; 23.1 tons of VOC per rolling 12-month period; 3.34 tons of single HAP per rolling 12-month period; and 8.33 tons of combined HAPs per rolling 12-month period.

(2) Additional Terms and Conditions

a. Emissions from B001, B002, P005, P007, P008, P009, P010, P011, P013 (except emissions vented to the flare Stack S60) and P902 (except emissions vented to Stack S70) are vented to a common stack identified as Stack S10.

b. The rolling 12-month allowable emission rates are based on the annual production of 132,000,000 gallons of denatured ethanol.

c. This emissions unit is exempt from the requirements of OAC rule 3745-18-06 in accordance with OAC rule 3745-18-06(A).

d. This emissions unit is permitted at its potential to emit, as defined in OAC rule 3745-31-01, for all pollutants.

e. Best available technology (BAT) control requirements for this emissions unit has been determined to be the following:

i. the use of the natural gas-fired thermal oxidizers to control VOC at 98%; and

ii. maintain enclosures and vent all the emissions to the thermal oxidizers to ensure compliance.

BAT also includes compliance with the terms and conditions of this permit. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

f. The permittee shall maintain a written quality assurance/quality control plan for the continuous NO_X monitoring system, designed to ensure continuous valid and representative readings of NO_X emissions in units of the applicable standards (lbs/hr). The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_X monitoring system must be kept on site and available for inspection during regular office hours.

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

g. The continuous emission monitoring system consists of all the equipment used to acquire data to provide a record of emissions and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The continuous NO_X monitoring system utilized for these emissions units P008, P009, P010 and P011 is the same as that used for emissions units B001 and B002.

c) Operational Restrictions

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

(2) The annual amount of dried distillers grain soluables (DDGS) produced from this emissions unit shall not exceed 420,225 tons, based upon a rolling, 12-month summation of the DDGS production.

(3) Prior to using steam injection in the dryers, the permittee shall conduct compliant emissions testing, while using steam injection, as specified in the requirements for emissions units B001 and B002.

d) Monitoring and/or Recordkeeping Requirements

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

(2) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable average combustion temperature within the thermal oxidizer, for any 3-hour block of time when the emissions unit controlled by the thermal oxidizer is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit was in compliance.

(3) The permittee shall properly install, operate, and maintain a continuous temperature monitor and recorder that measures and records the combustion temperature within the thermal oxidizer when the emissions unit is in operation, including periods of startup and shutdown. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within ± 1 percent of the temperature being measured or ± 5 degrees Fahrenheit, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manuals, with any modifications deemed necessary by the permittee. The permittee shall collect and record the following information each day the emissions unit is in operation:

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

b. a log (date and total time) of the downtime or bypass of the capture (collection) system and thermal oxidizer, and/or downtime of the monitoring equipment, when the associated emissions unit was in operation.

These records shall be maintained at the facility for a period of three years.

(4) Whenever the monitored average combustion temperature within the thermal oxidizer deviates from the limit established in accordance with this permit, the permittee shall

promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

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

a. a description of the corrective action;

b. the date corrective action 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 temperature readings immediately after the corrective action was implemented; and

f. the name(s) of the personnel who performed the work.

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

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

(5) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

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

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

(6) The permittee shall maintain on site, the document(s) of certification received from the U.S. EPA or the Ohio EPA's Central Office documenting that the continuous NO_X monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specifications 2 and 6. The letter(s)/document(s) of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

Each continuous monitoring system consists of all the equipment used to acquire and record data in units of all applicable standard(s), and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.

(7) The permittee shall operate and maintain equipment to continuously monitor and record NO_X emissions from this emissions unit in units of the applicable standards (lbs/hr). The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.

The permittee shall maintain records of data obtained by the continuous NO_X monitoring system including, but not limited to:

a. emissions of NO_X in parts per million on an instantaneous (one-minute) basis;

b. emissions of NO_X in pounds per hour and in all units of the applicable standards (lbs/hr) in the appropriate averaging periods (one hour average);

c. results of quarterly cylinder gas audits;

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

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

f. the total NO_X emissions for the month;

g. hours of operation of the emissions unit and the continuous NO_X monitoring system;

h. the date, time, and hours of operation of the emissions unit without the continuous NO_X monitoring system;

i. the date, time, and hours of operation of the emissions unit during any malfunction of the continuous NO_X monitoring system; as well as,

j. the reason (if known) and the corrective actions taken (if any) for each such event in d)(7)h and d)(7)i.

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

a. the operating hours for each month;

b. the DDGS production rate for each month, in tons;

c. the CO, NO_X, SO_2, PE, PM_{10}, VOC, single HAP and combined HAP emissions exhausted from Stack S10, in tons;

d. the rolling, 12-month summation of the DDGS production, in tons; and

e. the rolling, 12-month summation of CO, NO_X, SO_2, PE, PM_{10}, VOC, single HAP and combined HAP emissions exhausted from Stack S10, in tons.

(9) The permit to install and operate (PTIO) for this emissions unit was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the PTIO application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied to this emissions unit for each toxic pollutant, using data from the PTIO application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Acetaldehyde

TLV (mg/m^3): 33.20

Maximum Hourly Emission Rate (lbs/hr): 0.40

Predicted 1-Hour Maximum Ground-Level Concentration ($\mu g/m^3$): 61.20 (entire facility)

MAGLC ($\mu g/m^3$): 790

Pollutant: Formaldehyde

TLV (mg/m^3): 0.272

Maximum Hourly Emission Rate (lbs/hr): 0.48

Predicted 1-Hour Maximum Ground-Level Concentration (µg/m^3): 5.05 (entire facility)

MAGLC (µg/m^3): 6.47

(10) The above described evaluation determined that the maximum ground level concentration for the new or modified source was less than 80% of the MAGLC. Per ORC 3704.03(F)(4)(b), the owner or operator shall submit an annual report that describes any changes to the emissions unit that affect the air toxic modeling. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");

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

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

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in the emissions unit. These reports shall be submitted to the Regional Air Pollution Control Agency within 30 days after the deviation occurs.

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

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

i. 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;

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

iii. all exceedances of the rolling, 12-month limitation of the DDGS production; and

iv. all exceedances of the rolling, 12-month CO, NO_X, SO_2, PE, PM_{10}, VOC, single HAP and combined HAP emissions limitation for emissions exhausted from Stack S10.

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

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

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

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

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

(3) The permittee shall identify the following information in the annual permit evaluation report in accordance with the monitoring requirements for visible emissions in d)(5) above:

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

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

(4) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous NO_X monitoring system:

a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency, documenting all instances of NO_X emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, OAC Chapters 3745-14 and 3745-23, and any other applicable rules or regulations (i.e., lbs/hr as a one hour average). The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standards (i.e., lbs/hr as a one hour average).

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

i. the facility name and address;

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

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

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

v. the total NO_X emissions for the calendar quarter (tons);

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

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

viii. results and dates of quarterly cylinder gas audits;

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

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

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

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

xiii. the reason (if known) and the corrective actions taken (if any) for each event in e)(4)b.xi and e)(4)b.xii.

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

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

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

(5) The permittee shall submit annual reports which specify the total CO, NO_X, SO_2, PE, PM_{10}, VOC, single HAP and combined HAP emissions exhausted from Stack S10 for the previous calendar year. This report shall be submitted by April 15 of each year. This requirement may be satisfied by including and identifying the specific emissions data from these emissions units in the annual Fee Emission Report.

(6) The permittee shall submit annual reports that describe any changes to this emissions unit which affect the air toxic modeling. If no changes were made during the year, then a report shall be submitted stating that no changes were made. This report is due by January 31 of each year and shall cover the previous calendar year.

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

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) shall be determined in accordance with the following methods:

a. Emissions Limitation

Emissions exhausted from Stack S10 serving this emissions unit shall not exceed:

20.0 lbs/hr of CO;

21.9 lbs/hr of SO_2;

2.6 lbs/hr of PE and PM_{10}; and

5.3 lbs/hr of VOC

Applicable Compliance Method

Compliance shall be demonstrated through performance testing as described in the requirements for emissions units B001 and B002.

b. Emissions Limitation

Emissions exhausted from Stack S10 serving this emissions unit shall not exceed 21.2 lbs/hr of NO_X.

Applicable Compliance Method

Compliance shall be demonstrated through the data collected as required in d)(7) and through demonstration of compliance with the quality assurance/quality control plan, which shall meet the testing and recertification requirements of 40 CFR Part 60.

In addition, compliance shall be demonstrated through performance testing as described in f)(2).

c. Emissions Limitation

Emissions exhausted from Stack S10 serving this emissions unit shall not exceed:

87.6 tons of CO per rolling 12-month period;

95.7 tons of SO_2 per rolling 12-month period;

11.6 tons of PE and PM_{10} per rolling 12-month period;

23.1 tons of VOC per rolling 12-month period;

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements in d)(6) and shall be calculated by multiplying the hourly emission rate by the annual operating hours and dividing by 2,000 pounds/ton.

d. Emissions Limitation

Emissions exhausted from Stack S10 serving this emissions unit shall not exceed 92.9 tons of NO_X per rolling 12-month period.

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements in d)(8) and shall be based on the data collected as required in d)(7) and through demonstration of compliance with the quality assurance/quality control plan, which shall meet the testing and recertification requirements of 40 CFR Part 60.

e. Emissions Limitation

Emissions exhausted from Stack S10 serving this emissions unit shall not exceed:

3.34 tons per rolling 12-month period for any single HAP; and

8.33 tons per rolling 12-month period for combined HAPs.

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements in d)(6) and shall be calculated by multiplying the hourly emission rate for each individual HAP by the annual operating hours and dividing by 2,000 pounds/ton. The hourly emissions rate of each individual HAP shall be determined through performance testing as described in the requirements for emissions units B001 and B002.

To determine the annual emissions rate for combined HAPs, sum the annual emissions calculated above for each individual HAP.

f. Emissions Limitation

Visible PE from the stack serving this emissions unit shall not exceed 10% opacity, as a six-minute average.

Applicable Compliance Method

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

g) Miscellaneous Requirements

(1) The requirements of this permit supersede the requirements of PTI 08-04878 for this emissions unit, issued April 22, 2008 and represent no increase in emissions for this emissions unit.

13. Emissions Unit Group - Ethanol Tanks: T001, T002, T004, T005, T006,

EU ID	Operations, Property and/or Equipment Description
T001	200,000 gallon Above Ground Internal Floating Roof Storage Tank (190 Proof Ethanol Tank)
T002	200,000 gallon Above Ground Internal Floating Roof Storage Tank (200 Proof Ethanol Tank)
T004	1,500,000 gallon Above Ground Internal Floating Roof Storage Tank (Denatured Ethanol Tank No. 1)
T005	1,500,000 gallon Above Ground Internal Floating Roof Storage Tank (Denatured Ethanol Tank No. 2)
T006	1,500,000 gallon Above Ground Internal Floating Roof Storage Tank (Denatured Ethanol Tank No. 3)

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

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	Volatile organic compound (VOC) emissions from each emissions units T001 and T002 shall not exceed 0.53 ton per rolling 12-month period. Combined VOC emissions from emissions units T004, T005 and T006 shall not exceed 0.90 ton per rolling 12-month period. See b)(2)d.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
b.	OAC rule 3745-31-05(D) (synthetic minor to avoid TV)	VOC emissions from each emissions units T001 and T002 shall not exceed 0.53 ton per rolling 12-month period. Combined VOC emissions from emissions units T004, T005 and T006 shall not exceed 0.90 ton per rolling 12-month period.
c.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/06	See b)(2)b.
d.	OAC rule 3745-21-09(L)	See b)(2)c.
e.	40 CFR Part 60, Subpart Kb	See d)(1).

(2) Additional Terms and Conditions

a. The rolling 12-month allowable emission rates are based on the annual production of 132,000,000 gallons of denatured ethanol.

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

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the uncontrolled emissions from this air contaminant source since the potential to emit is less than ten tons per year.

c. 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).

d. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to the Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 changes), such that BAT is no longer required by State regulations for National Ambient Air Quality Standards (NAAQS) pollutant(s) less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limitations/control measures no longer apply.

c) Operational Restrictions

(1) This above-ground storage tanks shall only be used to store the following:

a. For emissions unit T001, 190 proof ethanol.

b. For emissions unit T002, 200 proof ethanol.

c. For emissions units T004, T005 and T006, denatured ethanol (95% ethanol and 5% gasoline).

(2) The annual undenatured ethanol throughput for emissions units T001 and T002 shall not exceed 125,710,000 gallons based upon a rolling, 12-month summation of the undenatured ethanol throughput.

(3) The annual combined denatured ethanol throughput for emissions units T004, T005 and T006 shall not exceed 132,000,000 gallons based upon a rolling, 12-month summation of the denatured ethanol throughput.

d) Monitoring and/or Recordkeeping Requirements

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

a. the undenatured ethanol throughput for emissions units T001 and T002 for each month, in gallons;

b. the combined denatured ethanol throughput for emissions units T004, T005 and T006 for each month, in gallons;

c. the rolling, 12-month summation of the undenatured ethanol throughput for emissions units T001 and T002, in gallons; and

d. the rolling, 12-month summation of the combined denatured ethanol throughput for emissions units T004, T005 and T006, in gallons.

(2) The permittee shall keep the following records per 40 CFR Part 60, Subpart Kb:

a. the dimension of the storage vessel and an analysis showing the capacity of the storage vessel, kept for the life of the source; and

b. a record of the volatile organic liquid (VOL) stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period, kept for at least 2 years.

(3) The permittee shall maintain monthly records of the rolling, 12-month summation of VOC emissions from this emissions unit, in tons.

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 undenatured ethanol throughput for emissions units T001 and T002; and

ii. all exceedances of the rolling, 12-month limitation of the combined denatured ethanol throughput for emissions units T004, T005 and T006.

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

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

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

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

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

(2) The permittee shall submit annual reports which specify the total VOC emissions in tons per rolling 12-month period from this emissions unit for the previous calendar year. This report shall be submitted by April 15 of each year. This requirement may be satisfied by including and identifying the specific emissions data from these emissions units in the annual Fee Emission Report.

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) shall be determined in accordance with the following methods:

a. Emission Limitation

VOC emissions from emissions units T001 and T002 shall not exceed 0.53 ton per rolling 12-month period.

Applicable Compliance Method

Compliance with the annual VOC emissions limitation is based on compliance with the undenatured ethanol throughput limitation.

b. Emission Limitation

Combined VOC emissions from emissions units T004, T005 and T006 shall not exceed 0.90 ton per rolling 12-month period.

Applicable Compliance Method

Compliance with the annual VOC emissions limitation is based on compliance with the denatured ethanol throughput limitation.

g) Miscellaneous Requirements

(1) The requirements of this permit supersede the requirements of PTI 08-04878 for this emissions unit, issued April 22, 2008 and represent no increase in emissions for this emissions unit.

14. Emissions Unit Group - Grain Hammermills: P001, P002, P003, P004,

EU ID	Operations, Property and/or Equipment Description
P001	Grain Hammermill No. 1 Controlled with a Baghouse
P002	Grain Hammermill No. 2 Controlled with a Baghouse
P003	Grain Hammermill No. 3 Controlled with a Baghouse
P004	Grain Hammermill No. 4 Controlled with a Baghouse

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)b, c)(1), d)(4), e)(1), e)(3) and f)(1)b.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	Particulate emissions (PE) and emissions of particulate matter less than 10 microns in diameter (PM_{10}) from the stacks servicing these emissions units shall not exceed 0.89 lb/hr. See b)(2)d.
b.	OAC rule 3745-31-05(D) (synthetic minor to avoid TV) and OAC rule 3745-31-05(E), as effective 12/01/06 (synthetic minor to avoid BAT)	Combined emissions from P001, P002, P003 and P004 shall not exceed 3.90 tons per rolling 12-month period of particulate emissions (PE) and emissions of particulate matter less than 10 microns in diameter (PM_{10}). See b)(2)b.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-17-07(A)	Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except for one 6-minute period per hour of not more than 60% opacity.
d.	OAC rule 3745-17-11(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3), as effective 11/30/01. See b)(2)e.
e.	OAC rule 3745-17-11(B)(1)	Combined PE from P001, P002, P003 and P004 shall not exceed 3.56 lbs/hr. See b)(2)f.

(2) Additional Terms and Conditions

a. The rolling 12-month allowable emission rates are based on the annual production of 132,000,000 gallons of denatured ethanol.

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

Permit to Install and Operate P0104717 for this air contaminant source takes into account the use of a baghouse, whenever this air contaminant source is in operation, with an outlet particulate emissions concentration of 0.004 gr/dscf, as a voluntary restriction as proposed by the permittee. This restriction allows the permittee to avoid Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3).

c. This emissions unit is permitted at its potential to emit, as defined in OAC rule 3745-31-01, for all pollutants.

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

EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limitations/control measures no longer apply.

e. This limitation reflects the current State Implementation Plan (SIP) for Ohio approved by the U.S. EPA for OAC rule 3745-31-05, as indicated in b)(2)d above. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then this emission limitation no longer applies.

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

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across the baghouse is between 0.25 to 8 inches of water (manufacturer's specifications).

(2) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit is in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

Whenever the monitored value for the pressure drop deviates from the limit or range established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

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

a. a description of the corrective action;

b. the date corrective action 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 pressure drop readings immediately after the corrective action was implemented; and

f. the name(s) of the personnel who performed the work.

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

This range or limit on the pressure drop across the baghouse 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 limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit. In addition, approved revisions to the range or 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) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

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

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

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the

emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

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

a. the operating hours for each month;

b. the PE and PM_{10} emissions from emissions units P001, P002, P003 and P004, in tons; and

c. the rolling, 12-month summation of PE and PM_{10} emissions from emissions units P001, P002, P003 and P004, in tons.

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 pressure drop across the baghouse was outside of the acceptable range;

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

iii. all exceedances of the rolling, 12-month PE and PM_{10} from emissions units P001, P002, P003 and P004 emissions limitations.

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

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

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

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

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

(2) The permittee shall identify the following information in the annual permit evaluation report in accordance with the monitoring requirements for visible emissions in d)(3) above:

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

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

(3) The permittee shall submit annual reports which specify the total PE and PM_{10} emissions from emissions units P001, P002, P003 and P004 in tons per rolling 12-month period from this emissions unit for the previous calendar year. This report shall be submitted by April 15 of each year. This requirement may be satisfied by including and identifying the specific emissions data from these emissions units in the annual Fee Emission Report.

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

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) shall be determined in accordance with the following methods:

a. Emission Limitation

Combined PE and PM_{10} emissions from P001, P002, P003 and P004 shall not exceed 0.89 lb/hr.

Applicable Compliance Method

Compliance shall be determined using the baghouse exhaust grain loading and inputs representing the Potential to Emit (PTE), as follows:

Emissions = (exhaust PE and PM_{10} concentration) * (exhaust air flow rate) * (60 minutes/hr) / (7000 grains/lb)

Emissions = (PE in gr/dscf from most recent test) * (12,989 scfm + 12,989 scfm) * (60 minutes/hr) / (7000 grains/lb)

The baghouse outlet PE concentration shall be determined through the performance testing as described in f)(2).

PM_{10} emissions from the baghouse are assumed to be equal to PE from the baghouse. Compliance with the allowable PM_{10} baghouse exhaust concentration is assumed with compliance of the PE baghouse exhaust concentration.

b. Emission Limitation

Combined PE from P001, P002, P003 and P004 shall not exceed 3.56 lbs/hr.

Applicable Compliance Method

Compliance with the allowable lb PE/hr shall be determined through the performance testing as described in f)(2).

c. Emission Limitation

Combined PE and PM_{10} emissions from P001, P002, P003 and P004 shall not exceed 3.90 tons per rolling 12-month period.

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements in d)(4) and shall be calculated as follows:

Emissions = (exhaust PE and PM_{10} concentration) * (exhaust air flow rate) * (60 minutes/hr) * (annual operating hours) / (7000 grains/lb) / (2000 lbs/ton)

Emissions = (PE in gr/dscf from most recent test) * (12,989 scfm + 12,989 scfm) * (60 minutes/hr) * (annual operating hours) / (7000 grains/lb) / (2000 lbs/ton)

The baghouse outlet PE concentration shall be determined through the performance testing as described in f)(2).

PM_{10} emissions from the baghouse are assumed to be equal to PE from the baghouse. Compliance with the allowable PM_{10} baghouse exhaust concentration is assumed with compliance of the PE baghouse exhaust concentration.

d. Emission Limitation

Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except for one 6-minute period per hour of not more than 60% opacity.

Applicable Compliance Method

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

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

a. The emission testing shall be conducted between the months of May and September calendar year 2013.

b. The emission testing shall be conducted to:

i. demonstrate compliance with the outlet concentration of 0.004 gr PE/dscf; and

ii. demonstrate compliance with the allowable emissions rate for combined PE from P001, P002, P003 and P004 of 3.56 lbs/hr

Note, each emissions unit is controlled by a separate baghouse. The baghouses from emissions units P001 and P002 are vented through a common stack. The baghouses from emissions units P003 and P004 are vented through another common stack. The outlet concentration requirement of 0.004 gr PE/dscf applies to each stack.

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

i. Methods 1 through 4 from 40 CFR Part 60, Appendix A for velocity traverses, velocity and volumetric flow rates, gas analysis, and moisture content;

ii. Method 5 of 40 CFR Part 60, Appendix A for filterable PE; and

Alternative U.S. EPA approved test methods may be used with prior approval from the Regional Air Pollution Control Agency.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

e. Not later than 60 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).

f. 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.

g. 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) The requirements of this permit supersede the requirements of PTI 08-04878 for this emissions unit, issued April 22, 2008 and represent no increase in emissions for this emissions unit.

15. Emissions Unit Group - TO / Waste Heat Recovery Boilers: B001, B002,

EU ID	Operations, Property and/or Equipment Description
B001	122 mmBtu/hr Natural Gas-fired Recuperative Thermal Oxidizer / Waste Heat Recovery Boiler
B002	122 mmBtu/hr Natural Gas-fired Recuperative Thermal Oxidizer / Waste Heat Recovery Boiler

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)d, d)(9), d)(10) and e)(6).

(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)e, d)(8), e)(2), e)(5), f)(1)c, f)(1)d and f)(1)e.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Emissions exhausted from Stack S10 serving this emissions unit shall not exceed: 20.0 lbs/hr of carbon monoxide (CO); 21.2 lbs/hr of nitrogen oxides (NO_X); 21.9 lbs/hr of sulfur dioxide (SO_2); 2.6 lbs/hr of particulate emissions (PE) and emissions of particulate matter less than 10 microns in diameter (PM_{10}); and 5.3 lbs/hr of volatile organic compounds (VOC).

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	OAC rule 3745-31-05(A)(3)	Visible particulate emissions from the stack serving this emissions unit shall not exceed 10% opacity as a six-minute average. The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D).
b.	OAC rule 3745-17-07(A)(1) and OAC rule 3745-17-10(B)(1)	The emission limitations specified by these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
c.	OAC rule 3745-18-06	See b)(2)b.
d.	ORC 3704.03(F) and OAC rule 3745-114-01	See d)(9), d)(10) and e)(6).
e.	OAC rule 3745-31-05(D) (synthetic minor to avoid TV)	Emissions exhausted from Stack S10 serving this emissions unit shall not exceed: 87.6 tons of CO per rolling 12-month period; 92.9 tons of NO_X per rolling 12-month period; 95.7 tons of SO_2 per rolling 12-month period; 11.6 tons of PE and PM_{10} per rolling 12-month period; 23.1 tons of VOC per rolling 12-month period; 3.34 tons of single HAP per rolling 12-month period; and 8.33 tons of combined HAPs per rolling 12-month period.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
f.	40 CFR 60 Subpart Db	NO_X emissions from this emissions unit shall not exceed 0.10 lb/mmBtu of actual heat input, as a 30-day rolling average, at all times, including periods of startup, shutdown and malfunction.

(2) Additional Terms and Conditions

a. Emissions from B001, B002, P005, P007, P008, P009, P010, P011, P013 (except emissions vented to the flare Stack S60) and P902 (except emissions vented to Stack S70) are vented to a common stack identified as Stack S10.

b. The rolling 12-month allowable emission rates are based on the annual production of 132,000,000 gallons of denatured ethanol.

c. This emissions unit is exempt from the requirements of OAC rule 3745-18-06 in accordance with OAC rule 3745-18-06(A).

d. This emissions unit is permitted at its potential to emit, as defined in OAC rule 3745-31-01, for all pollutants.

e. Best available technology (BAT) control requirements for this emissions unit has been determined to be the following:

i. the use of low NO_X burners;

ii. operation of this unit with a VOC destruction efficiency of 98%; and

iii. firing only natural gas.

BAT also includes compliance with the terms and conditions of this permit. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

f. The permittee shall maintain a written quality assurance/quality control plan for the continuous NO_X monitoring system, designed to ensure continuous valid and representative readings of NO_X emissions in units of the applicable standards (lbs/mmBtu of actual heat input and lbs/hr). The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_X monitoring system must be kept on site and available for inspection during regular office hours.

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

g. The continuous emission monitoring system consists of all the equipment used to acquire data to provide a record of emissions and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

c) Operational Restrictions

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

d) Monitoring and/or Recordkeeping Requirements

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

(2) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable average combustion temperature within the thermal oxidizer, for any 3-hour block of time when the emissions unit controlled by the thermal oxidizer is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit was in compliance.

(3) The permittee shall properly install, operate, and maintain a continuous temperature monitor and recorder that measures and records the combustion temperature within the thermal oxidizer when the emissions unit is in operation, including periods of startup and shutdown. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within ± 1 percent of the temperature being measured or ± 5 degrees Fahrenheit, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manuals, with any modifications deemed necessary by the permittee. The permittee shall collect and record the following information each day the emissions unit is in operation:

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

b. a log (date and total time) of the downtime or bypass of the capture (collection) system and thermal oxidizer, and/or downtime of the monitoring equipment, when the associated emissions unit was in operation.

These records shall be maintained at the facility for a period of three years.

(4) Whenever the monitored average combustion temperature within the thermal oxidizer deviates from the limit established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

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

a. a description of the corrective action;

b. the date corrective action 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 temperature readings immediately after the corrective action was implemented; and

f. the name(s) of the personnel who performed the work.

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

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

(5) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

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

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

(6) The permittee shall maintain on site, the document(s) of certification received from the U.S. EPA or the Ohio EPA's Central Office documenting that the continuous NO_X monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specifications 2 and 6. The letter(s)/document(s) of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

Each continuous monitoring system consists of all the equipment used to acquire and record data in units of all applicable standard(s), and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.

(7) The permittee shall operate and maintain equipment to continuously monitor and record NO_X emissions from this emissions unit in units of the applicable standards (lbs/mmBtu of actual heat input and lbs/hr). The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.

The permittee shall maintain records of data obtained by the continuous NO_X monitoring system including, but not limited to:

a. emissions of NO_X in parts per million on an instantaneous (one-minute) basis;

b. emissions of NO_X in pounds per hour and in all units of the applicable standards (lbs/mmBtu of actual heat input and lbs/hr) in the appropriate averaging periods (30-day rolling average and one hour average);

c. results of quarterly cylinder gas audits;

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

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

f. the total NO_X emissions for the month;

g. hours of operation of the emissions unit and the continuous NO_X monitoring system;

h. the date, time, and hours of operation of the emissions unit without the continuous NO_X monitoring system;

i. the date, time, and hours of operation of the emissions unit during any malfunction of the continuous NO_X monitoring system; as well as,

j. the reason (if known) and the corrective actions taken (if any) for each such event in d)(7)h and d)(7)i.

Per a letter from George Czerniak dated March 25, 2009 regarding the request for use of Method 19 and for single CEMS unit (continuous NO_X monitoring system) at the Andersons Marathon LLC Ethanol Plant, Greenville, Ohio, to calculate the NO_X emissions rate in terms of lbs/mmBtu, the permittee shall combine the measured value for its NO_X emission rate in terms of ppmV, the exhaust gas flow rate, and the heat input rate for the fuels combusted in the waste heat recovery boiler/thermal oxidizer (i.e., B001 and B002). Fuel combusted in the DDGS Dryers (emissions units P008 though P011) shall not be included in this calculation. In addition, per 40 CFR 60.13(g), the permittee may use a single CEM for the purpose of meeting the continuous monitoring requirements for both B001 and B002.

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

a. the operating hours for each month;

b. the CO, NO_X, SO_2, PE, PM_{10}, VOC, single HAP and combined HAP emissions exhausted from Stack S10, in tons; and

c. the rolling, 12-month summation of CO, NO_X, SO_2, PE, PM_{10}, VOC, single HAP and combined HAP emissions exhausted from Stack S10, in tons.

(9) The permit to install and operate (PTIO) for this emissions unit was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the PTIO application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied to this emissions unit for each toxic pollutant, using data from the PTIO application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Acetaldehyde

TLV (mg/m^3): 33.20

Maximum Hourly Emission Rate (lbs/hr): 0.40

Predicted 1-Hour Maximum Ground-Level Concentration ($\mu g/m^3$): 61.20 (entire facility)

MAGLC ($\mu g/m^3$): 790

Pollutant: Formaldehyde

TLV (mg/m^3): 0.272

Maximum Hourly Emission Rate (lbs/hr): 0.48

Predicted 1-Hour Maximum Ground-Level Concentration (µg/m^3): 5.05 (entire facility)

MAGLC (µg/m^3): 6.47

(10) The above described evaluation determined that the maximum ground level concentration for the new or modified source was less than 80% of the MAGLC. Per ORC 3704.03(F)(4)(b), the owner or operator shall submit an annual report that describes any changes to the emissions unit that affect the air toxic modeling. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");

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

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

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in the emissions unit. These reports shall be submitted to the Regional Air Pollution Control Agency within 30 days after the deviation occurs.

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

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

i. 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;

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

iii. all exceedances of the rolling, 12-month CO, NO_X, SO_2, PE, PM_{10}, VOC, single HAP and combined HAP emissions limitation for emissions exhausted from Stack S10.

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

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

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

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

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

(3) The permittee shall identify the following information in the annual permit evaluation report in accordance with the monitoring requirements for visible emissions in d)(5) above:

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

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

(4) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous NO_X monitoring system:

a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency, documenting all instances of NO_X emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, OAC Chapters 3745-14 and 3745-23, and any other applicable rules or regulations (i.e., lbs/mmBtu of actual heat input as a 30-day rolling average and lbs/hr as a one hour average). The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standards (i.e., lbs/mmBtu of actual heat input as a 30-day rolling average and lbs/hr as a one hour average).

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

i. the facility name and address;

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

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

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

v. the total NO_X emissions for the calendar quarter (tons);

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

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

viii. results and dates of quarterly cylinder gas audits;

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

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

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

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

xiii. the reason (if known) and the corrective actions taken (if any) for each event in e)(4)b.xi and e)(4)b.xii.

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

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

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

(5) The permittee shall submit annual reports which specify the total CO, NO_X, SO_2, PE, PM_{10}, VOC, single HAP and combined HAP emissions exhausted from Stack S10 for the previous calendar year. This report shall be submitted by April 15 of each year. This

requirement may be satisfied by including and identifying the specific emissions data from these emissions units in the annual Fee Emission Report.

(6) The permittee shall submit annual reports that describe any changes to this emissions unit which affect the air toxic modeling. If no changes were made during the year, then a report shall be submitted stating that no changes were made. This report is due by January 31 of each year and shall cover the previous calendar year.

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

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) shall be determined in accordance with the following methods:

a. Emissions Limitation

Emissions exhausted from Stack S10 serving this emissions unit shall not exceed:

20.0 lbs/hr of CO;

21.9 lbs/hr of SO_2;

2.6 lbs/hr of PE and PM_{10}; and

5.3 lbs/hr of VOC

Applicable Compliance Method

Compliance shall be demonstrated through performance testing as described in f)(2).

b. Emissions Limitation

Emissions exhausted from Stack S10 serving this emissions unit shall not exceed 21.2 lbs/hr of NO_X.

Applicable Compliance Method

Compliance shall be demonstrated through the data collected as required in d)(7) and through demonstration of compliance with the quality assurance/quality control plan, which shall meet the testing and recertification requirements of 40 CFR Part 60.

In addition, compliance shall be demonstrated through performance testing as described in f)(2).

c. Emissions Limitation

Emissions exhausted from Stack S10 serving this emissions unit shall not exceed:

87.6 tons of CO per rolling 12-month period;

95.7 tons of SO_2 per rolling 12-month period;

11.6 tons of PE and PM_{10} per rolling 12-month period;

23.1 tons of VOC per rolling 12-month period;

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements in d)(8) and shall be calculated by multiplying the hourly emission rate by the annual operating hours and dividing by 2,000 pounds/ton.

d. Emissions Limitation

Emissions exhausted from Stack S10 serving this emissions unit shall not exceed 92.9 tons of NO_X per rolling 12-month period.

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements in d)(8) and shall be based on the data collected as required in d)(7) and through demonstration of compliance with the quality assurance/quality control plan, which shall meet the testing and recertification requirements of 40 CFR Part 60.

e. Emissions Limitation

Emissions exhausted from Stack S10 serving this emissions unit shall not exceed:

3.34 tons per rolling 12-month period for any single HAP; and

8.33 tons per rolling 12-month period for combined HAPs.

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements in d)(8) and shall be calculated by multiplying the hourly emission rate for each individual HAP by the annual operating hours and dividing by 2,000 pounds/ton. The hourly emissions rate of each individual HAP shall be determined through performance testing as described in f)(2).

To determine the annual emissions rate for combined HAPs, sum the annual emissions calculated above for each individual HAP.

f. Emissions Limitation

Visible PE from the stack serving this emissions unit shall not exceed 10% opacity, as a six-minute average.

Applicable Compliance Method

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

g. Emissions Limitation

NO_X emissions from this emissions unit shall not exceed 0.10 lb/mmBtu of actual heat input, as a 30-day rolling average, at all times, including periods of startup, shutdown and malfunction.

Applicable Compliance Method

Compliance shall be demonstrated through the data collected as required in d)(7) and through demonstration of compliance with the quality assurance/quality control plan, which shall meet the testing and recertification requirements of 40 CFR Part 60.

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

a. The emission testing shall be conducted between the months of May and September calendar year 2013.

b. The emission testing shall be conducted to:

i. demonstrate compliance with the following allowable emissions rates for combined emissions from B001, B002, P005, P007, P008, P009, P010, P011, P013 (except emissions vented to the flare) and P902 (except emissions vented to Stack S70):

(a) 20.0 lbs/hr of CO;

(b) 21.2 lbs/hr of NO_X;

(c) 21.9 lbs/hr of SO_2;

(d) 2.6 lbs/hr of PE and PM_{10};

(e) 5.3 lbs/hr of VOC;

(f) 3.34 tons per rolling 12-month period for any single HAP; and

(g) 8.33 tons per rolling 12-month period for combined HAPs.

ii. verify the control efficiency (98% for VOC) of the thermal oxidizer.

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

i. Methods 1 through 4 from 40 CFR Part 60, Appendix A for velocity traverses, velocity and volumetric flow rates, gas analysis, and moisture content;

ii. Method 5 of 40 CFR Part 60, Appendix A for filterable PE;

iii. Method 202 as set forth in the most recent update of 40 CFR Part 51 Appendix M for PM_{10} and condensable PE;

iv. Method 6c or 320 from 40 CFR Part 60, Appendix A for SO_2;

v. Method 7 or 320 from 40 CFR Part 60, Appendix A for NO_X;

vi. Method 10 or 320 from 40 CFR Part 60, Appendix A for CO;

vii. Methods 18 or 320 from 40 CFR Part 60, Appendix A for total VOC and total HAPs (including, but not limited to, acetaldehyde, acetic acid, ethanol, formaldehyde, formic acid, 2-furaldehyde, methanol, acrolein and hexane*); and

viii. Method 25 or Method 25A from 40 CFR Part 60, Appendix A for VOC control efficiency.

* With prior approval from the Regional Air Pollution Control Agency, the permittee may perform pre-screening to determine which VOC and HAPs should be tested.

Alternative U.S. EPA approved test methods may be used with prior approval from the Regional Air Pollution Control Agency.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

e. Not later than 60 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).

f. 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.

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) The requirements of this permit supersede the requirements of PTI 08-04878 for this emissions unit, issued April 22, 2008 and represent no increase in emissions for this emissions unit.