10/27/2026

No	TOXIC REVIEW
No	PSD
Yes	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT/GACT
Yes	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED
No	MAJOR GHG
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

Steve Webb
Guardian Lima, LLC
2485 Houx Parkway
Lima, OH 45804

RE: DRAFT AIR POLLUTION PERMIT-TO-INSTALL

Facility ID: 0302020341
Permit Number: P0141267
Permit Type: Initial Installation
County: Allen

Dear Permit Holder:

A draft of the Ohio Administrative Code (OAC) Chapter 3745-31 Air Pollution Permit-to-Install for the referenced facility has been issued for the emissions unit(s) listed in the Authorization section of the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the permit. A public notice will appear in the Ohio Environmental Protection Agency (Ohio EPA) ***Weekly Review and Public Notices*** website. A copy of the public notice and the draft permit are enclosed. This permit can be accessed electronically on the Ohio EPA document search webpage: ***https://edocpub.epa.ohio.gov/publicportal/edochome.aspx***. The permit can also be commented on and accessed electronically at: ***https://ohioepa.commentinput.com***. Search by entering the permit # (P0141267) in the "Search Projects" search box and selecting “Review Document” or “Draft Permit.” Comments will be accepted as a marked-up copy of the draft permit or in narrative format. Written (paper) comments must be sent to the following:

Andrea Moore
Permitting Section
Ohio EPA, DAPC
50 West Town Street, Suite 700
P.O. Box 1049
Columbus, Ohio 43216-1049

and

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

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published on the Ohio EPA ***Weekly Review and Public Notices*** website. 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 Ohio EPA DAPC, Northwest District Office at (419)352-8461.

Sincerely,

Robert Hodanbosi
Chief, Division of Air Pollution Control

cc: U.S. EPA Region 5 - *Via E-Mail Notification*
Ohio EPA-NWDO; Indiana

Environmental Protection Agency

Draft Permit-to-Install
Guardian Lima, LLC
Permit Number: P0141267
Facility ID: 0302020341
Effective Date: To be entered upon final issuance

PUBLIC NOTICE

The following matters are the subject of this public notice by the Ohio Environmental Protection Agency. The complete public notice, including any additional instructions for submitting comments, requesting information, a public hearing, or filing an appeal may be obtained at: ***Weekly Review and Public Notices | Ohio Environmental Protection Agency*** or Hearing Clerk, Ohio EPA, 50 W. Town St., Columbus, Ohio 43215. Ph: 614-644-3037 email: ***HClerk@epa.ohio.gov***

Draft Air Pollution Permit-to-Install Initial Installation

Guardian Lima, LLC
2485 Houx Parkway
Lima, OH 45804

ID#: P0141267
Date of Action: 10/27/2026
Permit Desc: Initial installation and Chapter 31 modifications to allow Guardian to increase the annual undenatured ethanol production from 90 to 120 million gallons per year. New emissions units include two boilers, two hammermills with a baghouse and a new cooling tower.

The permit can be accessed electronically and comments may be submitted at: https://ohioepa.commentinput.com - Search by entering the permit P0141267 in the "Search Projects" search box.

Environmental Protection Agency

Draft Permit-to-Install
Guardian Lima, LLC
Permit Number: P0141267
Facility ID: 0302020341
Effective Date: To be entered upon final issuance

Permit Strategy Write-Up

1. Check all that apply:

   ☒ Synthetic Minor Determination

   ☐ Netting Determination

2. Source Description:

   Guardian Lima, LLC (Guardian) is an ethanol production plant located in Allen County. This permit will allow Guardian to increase the annual undenatured ethanol production from 90 to 120 million gallons per year. In addition to increases in throughput rates for ethanol, raw materials and co-products, Guardian is also performing several facility upgrades and adding new equipment to support the rate increase in ethanol production.

3. Facility Emissions and Attainment Status:

   Guardian is a Title V facility for having emissions of carbon monoxide (CO), nitrogen oxides (NOx) and volatile organic compounds (VOC) above the 100 ton per year limit for criteria pollutants. Guardian will be considered a synthetic minor for purposes of Prevention of Significant Deterioration (PSD) and Hazardous Air Pollutants (HAPs).

   The area where Guardian is located (Allen County) is classified as attainment or unclassifiable for all criteria pollutants, particulate matter 10 microns and less in diameter (PM10), particulate matter 2.5 microns and less in diameter (PM2.5), sulfur dioxide (SO2), nitrogen oxides (NOx), carbon monoxide (CO), volatile organic compounds (VOC), and lead (Pb).

4. Source Emissions:

   With this permit application, Guardian remains a Title V facility for having emissions of carbon monoxide (CO), nitrogen oxides (NOx) and volatile organic compounds (VOC) above the 100 ton per year limit for criteria pollutants. Guardian will be considered a synthetic minor for purposes of Prevention of Significant Deterioration (PSD) and Hazardous Air Pollutants (HAPs).

5. Conclusion:

   The federally enforceable operational restrictions, emissions limitations, monitoring and record keeping requirements in this permit are sufficient to limit the federally enforceable potential to emit, allowing the facility to remain below the PSD significant threshold and major source MACT threshold.

6. Please provide additional notes or comments as necessary:

   None

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

Pollutant	Tons Per Year
NOx	85.46
CO	110.45
VOC	243.03
PE	140.43
PM10	66.14
PM2.5	57.15
SO2	40.00
Individual HAP	9.08
Combined HAPs	24.57

Ohio Environmental Protection Agency

DRAFT

Division of Air Pollution Control
Permit-to-Install

for

Guardian Lima, LLC

Facility ID:	0302020341
Permit Number:	P0141267
Permit Type:	Initial Installation
Issued:	10/27/2026
Effective:	To be entered upon final issuance

Ohio Environmental Protection Agency

Division of Air Pollution Control

Permit-to-Install

for

Guardian Lima, LLC

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Authorization

Facility ID:	0302020341
Facility Description:	Industrial Organic Chemicals, n.e.c
Application Number(s):	A0082482
Permit Number:	P0141267
Permit Type:	Permit-To-Install
Permit Fee:	$25,875.00 *DO NOT send payment at this time, subject to change before final issuance*
Issue Date:	10/27/2026
Effective Date:	To be entered upon final issuance

This document constitutes issuance of a Permit-to-Install for the emissions unit(s) identified on the following page to:

Guardian Lima, LLC
2485 Houx Parkway
Lima, OH 45804

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

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

The above-named entity is hereby granted this Permit-to-Install 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 and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

John Logue
Director

Authorization (continued)

Permit Number: P0141267

Permit Description: Initial installation and Chapter 31 modifications to allow Guardian to increase the annual undenatured ethanol production from 90 to 120 million gallons per year. New emissions units include two boilers, two hammermills with a baghouse and a new cooling tower.

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

Emissions Unit ID:	**B004**
Company Equipment ID:	B004
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**B005**
Company Equipment ID:	B005
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**F001**
Company Equipment ID:	Roadways and Parking Areas
Superseded Permit Number:	P0128330
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**F002**
Company Equipment ID:	F002 DDGS Loading - Alternative
Superseded Permit Number:	P0123848
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**J001**
Company Equipment ID:	J001 Ethanol Loadout
Superseded Permit Number:	P0133470
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P001**
Company Equipment ID:	Three Hammermills with Baghouse
Superseded Permit Number:	P0128330
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P002
Company Equipment ID:	P002 Ethanol Production Operations
Superseded Permit Number:	P0133470
General Permit Category and Type:	Not Applicable

Emissions Unit ID:	P003
Company Equipment ID:	P003 Cooling Tower
Superseded Permit Number:	P0133470
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P004**
Company Equipment ID:	P004 Fermentation Process with Scrubber
Superseded Permit Number:	P0140797
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P006**
Company Equipment ID:	Two Hammermills with Baghouse
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P007**
Company Equipment ID:	Cooling Tower 2
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P901**
Company Equipment ID:	Grain Receiving
Superseded Permit Number:	P0128330
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P902**
Company Equipment ID:	Grain Handling and Storage
Superseded Permit Number:	P0139909
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P903**
Company Equipment ID:	DDGS Cooling
Superseded Permit Number:	P0138285
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P904**
Company Equipment ID:	DDGS Handling and Storage
Superseded Permit Number:	P0128330
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P905**
Company Equipment ID:	DDGS Loadout
Superseded Permit Number:	P0128330
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**T001**
Company Equipment ID:	Ethanol Day Tank No.1, 96,000 Gallons
Superseded Permit Number:	P0128330

General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**T002**
Company Equipment ID:	Ethanol Day Tank No 2, 96,000 Gallons
Superseded Permit Number:	P0128330
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**T003**
Company Equipment ID:	Gasoline Denaturant Tank, 56,000 Gallons
Superseded Permit Number:	P0128330
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**T004**
Company Equipment ID:	Denatured Ethanol Tank, 2,010,000 Gallons
Superseded Permit Number:	P0128330
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**T005**
Company Equipment ID:	200-Proof Ethanol Tank, 96,000 Gallons
Superseded Permit Number:	P0128330
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**T006**
Company Equipment ID:	Denatured Ethanol Tank, 1,500,000 Gallons
Superseded Permit Number:	P0140797
General Permit Category and Type:	Not Applicable

List of Commonly Used Abbreviations

AP-42 = U.S. EPA's Compilation of Air Pollution Emissions Factors	HVLP = high volume, low pressure	PER = Permit Evaluation Report
ASTM = American Society for Testing and Materials	LAER = lowest achievable emission rate	PM = particulate matter
BACT = Best Available Control Technology	lb(s)/hr = pound(s) per hour	PM_{10} = particulate matter with an aerodynamic diameter less than or equal to 10 microns
BAT = Best Available Technology	LDAR = leak detection and repair	$PM_{2.5}$ = particulate matter with an aerodynamic diameter less than or equal to 2.5 microns
CAA = Clean Air Act	LPG = liquefied petroleum gas/propane	ppb = parts per billion
CAM = compliance assurance monitoring	MACT = maximum achievable control technology	ppm = parts per million
CEMS = continuous emissions monitoring system	MAGLC = maximum acceptable ground level concentration	PSD = Prevention of Significant Deterioration
CFC = chlorofluorocarbon	mg/m3 = milligrams per cubic meter	psi = pounds per square inch
CFR = Code of Federal Regulations	MM = million	psia = pounds per square inch absolute
CH_4 = methane	MMBtu = million British Thermal Units	PTE = potential-to-emit
CI = compression ignition	MSDS = material safety data sheet	PTI = Permit-to-Install
CO = carbon monoxide	MSW = municipal solid waste	PTIO = Permit-to-Install and Operate
CO_2 = carbon dioxide	NAAQS = National Ambient Air Quality Standard	PTO = Permit-to-Operate
COM = continuous opacity monitor	NESHAP = National Emission Standard for Hazardous Air Pollutants	PWR = process weight rate
DAPC = Division of Air Pollution Control	NG = natural gas	RACM = reasonably available control measures
DO/LAA = District Office/Local Air Agency	ng/m3 = nanograms per cubic meter	RACT = reasonably available control technology
dscf = dry standard cubic foot	NH_3 = ammonia	RATA = relative accuracy test audit
EAC = emissions activity category	NMHC = non-methane hydrocarbons	RTO = regenerative thermal oxidizer
eDocs = electronic documents database	NMOC = non-methane organic compound	SB265 = Senate Bill 265
ERAC = Environmental Review Appeals Commission	NO = nitrogen oxide	scfm = standard cubic feet per minute
ESP = electrostatic precipitator	NO_2 = nitrogen dioxide	SI = spark ignition
EU = emissions unit	NO_x = nitrogen oxides	SIP = State Implementation Plan
FEPTIO = Federally Enforceable Permit-to-Install and Operate	NSPS = New Source Performance Standard	SO_2 = sulfur dioxide
FER = Fee Emissions Report	NSR = New Source Review	SSMP = startup, shutdown, and malfunction plan
FR = Federal Register	NTV = Non-Title V	TDS = total dissolved solids
GACT = generally achievable control technology	O&M = operation and maintenance	TLV = threshold limit value
GHG = greenhouse gases	OAC = Ohio Administrative Code	TO = thermal oxidizer
gr/dscf = grains per dry standard cubic foot	OC = organic compound	TPH = ton(s) per hour
H_2S = hydrogen sulfide	Ohio EPA = Ohio Environmental Protection Agency	TPY = ton(s) per year
H_2SO_4 = sulfuric acid	ORC = Ohio Revised Code	TSP = total suspended particulates
HAP = hazardous air pollutant	Pb = lead	VE = visible particulate emissions
HCl = hydrogen chloride	PBR = Permit-By-Rule	VMT = vehicle miles traveled
HF = hydrogen fluoride	PCB = polychlorinated biphenyl	VOC = volatile organic compound
Hg = mercury	PE = particulate emissions	WPP = work practice plan
hp = horsepower	PEMS = predictive emissions monitoring system	µg/m3 = micrograms per cubic meter

A. Standard Terms and Conditions

1. Federally Enforceable Standard Terms and Conditions

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

(1) Standard Term and Condition A.2.a), Severability Clause

(2) Standard Term and Condition A.3.c) through A. 3.e), General Requirements

(3) Standard Term and Condition A.6.c), Compliance Requirements

(4) Standard Term and Condition A.9., Reporting Requirements

(5) Standard Term and Condition A.10., Applicability

(6) Standard Term and Condition A.11.b) through A.11.e), Construction of New Source(s) and Authorization to Install

(7) Standard Term and Condition A.14., Public Disclosure

(8) Standard Term and Condition A.15., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

(9) Standard Term and Condition A.16., Fees

(10) Standard Term and Condition A.17., Permit Transfers

2. Severability Clause

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

b) All terms and conditions designated in parts B. and C. of this permit are federally enforceable as a practical matter, if they are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA and the state and by citizens (to the extent allowed by section 304 of the Act) under the Act. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under state law only, only if specifically identified in this permit as such.

3. General Requirements

a) Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act and is grounds for enforcement action or for permit revocation, revocation and re-issuance, or modification.

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

c) This permit may be modified, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.

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

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

4. Monitoring and Related Record Keeping and Reporting Requirements

a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:

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

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

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

(4) The analytical techniques or methods used.

(5) The results of such analyses.

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

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

c) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:

(1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Ohio EPA DAPC, Northwest District Office.

(2) Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the Ohio EPA DAPC, Northwest District Office. The written reports shall be submitted quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See A.15. below if no deviations occurred during the quarter.

(3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the Ohio EPA DAPC, Northwest District Office every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semiannual report, which states that no deviations occurred during that period.

(4) This permit is for an emissions unit located at a Title V facility. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

d) The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the Ohio EPA DAPC, Northwest District Office in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06.

Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

6. Compliance Requirements

a) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the appropriate Ohio EPA District Office or contracted local air agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the electronic signature date shall constitute the date that the required application, notification or report is considered to be "submitted". Any document requiring signature may be represented by entry of the personal identification number (PIN) by responsible official as part of the electronic submission process or by the scanned attestation document signed by the Authorized Representative that is attached to the electronically submitted written report.

Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a Responsible Official that, based on

information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete

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

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

(2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.

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

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

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

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

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

7. Best Available Technology

As specified in OAC Rule 3745-31-05, new sources that must employ Best Available Technology (BAT) shall comply with the Applicable Emission Limitations/Control Measures identified as BAT for each subject emissions unit.

8. Air Pollution Nuisance

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

9. Reporting Requirements

The permittee shall submit required reports in the following manner:

a) Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the Ohio EPA DAPC, Northwest District Office.

b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will

be taken, shall be submitted to the Ohio EPA DAPC, Northwest District Office. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

10. Applicability

This permit-to-install is applicable only to the emissions unit(s) identified in the permit-to-install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s) not exempt from the requirement to obtain a permit-to-install.

11. Construction of New Sources(s) and Authorization to Install

a) This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. This deadline may be extended once by twelve months if application is made to the Director within a reasonable time before the termination date and the permittee shows good cause for any such extension.

c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., 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) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed by marking the affected emissions unit(s) as "permanently shut down" in "Air Services" along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update electronically will constitute notifying the Director of the permanent shutdown of the affected emissions unit(s).

d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., 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). All records relating to any permanently shut down emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the reporting requirements identified in this permit covering the last period the emissions unit operated.

Unless otherwise exempted, no emissions unit certified by the responsible official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31 and OAC Chapter 3745-77 if the restarted operation is subject to one or more applicable requirements.

e) The permittee shall comply with any residual requirements related to this permit, such as the requirement to submit a deviation report, air fee emission report, or any other reporting required by this permit for the period the operating provisions of this permit were enforceable, or as required by regulation or law. All reports shall be submitted in a form and manner prescribed by the Director. All records relating to this permit must be maintained in accordance with law.

12. Permit-To-Operate Application

The permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77. The permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve months after commencing operation of the emissions units covered by this permit. However, if operation of the proposed new or modified source(s) as authorized by this permit would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d) must be obtained before operating the source in a manner that would violate the existing Title V permit requirements.

13. Construction Compliance Certification

The applicant shall identify the following dates in the "Air Services" facility profile for each new emissions unit identified in this permit.

a) Completion of initial installation date shall be entered upon completion of construction and prior to start-up.

b) Commence operation after installation or latest modification date shall be entered within 90 days after commencing operation of the applicable emissions unit.

14. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

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

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

16. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable permit-to-install fees within 30 days after the issuance of any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

17. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The new owner must update and submit the ownership information via the "Owner/Contact Change" functionality in "Air Services" once the transfer is legally completed. The change must be submitted through "Air Services" within thirty days of the ownership transfer date.

18. Risk Management Plans

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

19. Title IV Provisions

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

B. Facility Wide Terms and Conditions

1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

   a) None.

2. The following terms and conditions were established under OAC rule 3745-31-05(D) for purposes of limiting the potential to emit for hazardous air pollutant (HAP) emissions from emissions units P002, P004 and P903, combined:

   a) Emission Limitations

   Annual HAP emissions from emissions units P002, P004 and P903, combined shall not exceed 9.08 tons per rolling, 12-month period for any individual HAP and 17.86 tons per rolling, 12-month period for any combination of HAPs.

   The federally enforceable requirements are being established for purposes of avoiding Maximum Achievable Control Technology (MACT) applicability. The federally enforceable emission limitations are based on the operational restrictions contained in B.2.b) below.

   b) Operational Restrictions

   (1) The maximum rolling, 12-month quantity of HAP emissions from ethanol and DDGS produced or stored in emissions units P002, P004 and P903, combined is limited by the following:

   a. For each individual HAP

$$\sum_{M=1}^{12}\sum_{i=1}^{n}\left\{\left[(Q_i)(HAP_{Qi})+(R_i)(HAP_{Ri})+(S_i)(HAP_{Si})+(T_i)(HAP_{Ti})\right]\left(\frac{ton}{2000\ lbs}\right)\right\} \leq 9.08\ tons$$

   Where:

   M = the increment of the rolling, 12-month period
   i= each individual HAP
   n = number of each individual HAP
   Q_i= total beer feed rate (gal/month) associated with ethanol production operations (emissions unit P002)
   R_i= total beer feed rate (gal/month) associated with the fermentation operations when the scrubber is online (i.e. “normal production mode” of P004)
   S_i= total beer feed rate (gal/month) associated with the fermentation operations when the is scrubber offline (i.e. “bypass mode” of P004)
   T_i= total beer feed rate (gal/month) associated with the DDGS cooler (emissions unit P903)
   HAP_{Qi}= HAP emission factor for each individual HAP (lb/gal) from the ethanol production operations*
   HAP_{Ri}= HAP emission factor for each individual HAP (lb/gal) from the fermentation process when the scrubber is online*

HAP_{Si}= HAP emission factor for each individual HAP (lb/gal) from the fermentation operation when the scrubber is offline*

HAP_{Ti}= HAP emission factor for each individual HAP (lb/gal) from the DDGS cooler*

b. For combined HAPs

$$\sum_{M=1}^{12} \left\{ \left[HAP_{Qc} + HAP_{Rc} + HAP_{Sc} + HAP_{Tc} \right] \left(\frac{ton}{2{,}000\ lbs} \right) \right\} \leq 17.86\ tons$$

Where:

M = the increment of the rolling, 12-month period

HAP_{Qc}= summation of each individual HAP (i), combined from the ethanol production operations (emissions unit P002), in lb/month, calculated in b)(1)a. above

HAP_{Rc}= summation of each individual HAP (i), combined from the fermentation process when the scrubber is online (i.e. "normal production mode" of P004), in lb/month, calculated in b)(1)a. above

HAP_{Sc}= summation of each individual HAP (i), combined from the fermentation operation when the scrubber is offline (i.e. "bypass mode" of P004), in lb/month, calculated in b)(1)a. above

HAP_{Tc}= summation of each individual HAP (lb/month), combined from the DDGS cooler (emissions unit P903), in lbs/month, calculated in b)(1)a. above

*Applied emission factors shall be reviewed and approved by Ohio EPA and shall be based upon the most recent stack test conducted at this facility.

c) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall collect and record the following HAP information each month from emissions units P002, P004 and P903, combined:

a. The beer feed rate (gal/month);

b. The calculated emission rate of each individual HAP from each emissions unit;

c. The total emission rate for each individual HAP from emissions units P002, P004 and P903, combined [summation of c)(1)b.], in tons;

d. The total HAP emission rate for all combined HAPs from emissions units P002, P004 and P903, combined [summation of c)(1)c.], in tons; and

e. The rolling, 12-month summations for each individual HAP and all combined HAP emissions, in tons.

d) Reporting Requirements

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

a. All exceedances of the rolling, 12-month operational restriction specified in b)(1)a.; and

b. All exceedances of the rolling, 12-month operational restriction specified in b)(1)b.

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

(2) The permittee shall submit quarterly deviation reports that summarize the total individual HAP and combined HAP emissions, as calculated in b)(1)a. and b)(1)b.

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

(3) Within 60 days of the effective date of this permit, the permittee shall submit to Ohio EPA the emission factors used to calculate the HAPs emissions, as required by b)(1)a. above.

(4) The permittee shall submit a revised HAP emission factor, within 60 days of modifying any process that results in an increase in HAP emissions, whether or not there is an increase in overall HAP emissions.

e) Testing Requirements

(1) Emission Limitations:

Annual HAP emissions from emissions units P002, P004 and P903, combined shall not exceed 9.08 tons per rolling, 12-month period for any individual HAP and 17.86 tons per rolling, 12-month period for any combination of HAPs.

Applicable Compliance Methods:

The permittee shall demonstrate compliance with the rolling, 12-month emission limitations in accordance with the record keeping requirements specified in section c)(1) above.

If required, the permittee shall conduct emissions testing for any individual HAP, as designated by Ohio EPA. At a minimum, the permittee shall test for acetaldehyde whenever a compliance test for volatile organic compounds (VOC) emissions occurs.

3. This PTI addresses several facility modifications/upgrades to increase the annual undenatured ethanol production from 90 million gallons per year to 120 million gallons per year. The requirements of this permit shall become enforceable on the date the permittee commences operation under the modifications authorized by this permit. Identification of the specific date modified operation commences is required by term A.13.b) within the Standard Terms and Conditions of this permit. Authorization and permitting requirements associated with the current operation (prior to modification) of the emissions units included in this permit are contained in the facility's Title V permit and are incorporated by reference (IBR) as requirements of this permit as indicated by the following:

a) The permittee shall comply with all applicable emission limitations/control measures, operational restrictions, monitoring and record keeping requirements, reporting requirements, testing requirements, and additional term and condition requirements contained in the facility's Final Title V Chapter 3745-77 permit with an issuance and effective date of 06/09/26. The IBR requirements shall cease to be enforceable for each emissions unit after the date an emissions unit commences operation under the modification authorized by this permit as indicated above.

C. Emissions Unit Terms and Conditions

1. Emissions Unit Group -96 mmBtu/hr NG Fired Boilers: B004, B005

EU ID	Operations, Property and/or Equipment Description
B004	96 mmBtu/hr Natural Gas fired Boiler with Low NOx Burners and Flue Gas Recirculation
B005	96 mmBtu/hr Natural Gas Fired Boiler with Low NOx Burners and Flue Gas Recirculation

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

(1) b)(1)i. and d)(3).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)	<u>From each emissions unit individually:</u> 0.036 lb nitrogen oxides (NOx)/MMBtu of actual heat input; 15.13 tons NOx per rolling, 12-month period 3.55 lbs carbon monoxide (CO)/hr; 15.56 tons CO per rolling, 12-month period 0.48 lb particulate emissions (PE)/ particulate matter less than or equal to 10 microns in size (PM10)/particulate matter less than or equal to 2.5 microns in size (PM2.5)/hr; 2.10 tons PE/PM10/PM2.5 per rolling, 12-month period 0.38 lb volatile organic compounds (VOC)/hr; 1.67 tons VOC per rolling, 12-month period Visible PE shall not exceed 10% opacity, as a six-minute average.

		See b)(2)a. and b)(2)e.
b.	ORC 3704.03(T) OAC rule 3745-31-05(A)(3)	See b)(2)b.
c.	OAC rule 3745-31-05(A)(3)(a)(ii)	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PM10/PM2.5, VOC and sulfur dioxide (SO2) emissions from this air contaminant source since the potential to emit is less than 10 tons/year taking into account the federally enforceable restriction in c)(1).
d.	OAC rule 3745-17-07(A)	See b)(2)c.
e.	OAC rule 3745-17-10(B)(1)	See b)(2)c.
f.	OAC rule 3745-18-06	See b)(2)d.
g.	OAC rule 3745-110-03(B)	See b)(2)c.
h.	40 CFR, Part 60, Subpart Dc	See b)(2)f. and d)(1).
i.	ORC 3704.03(F) OAC rule 3745-114-01	See d)(3).

(2) Additional Terms and Conditions

a. The federally enforceable emission limitations in b)(1)a. are established for the purpose of limiting potential to emit (PTE) to avoid Prevention of Significant Deterioration (PSD) and Maximum Achievable Control Technology (MACT) applicability. The federally enforceable emission limitations are based on the operational restriction contained in c)(1).

b. The BAT requirements for NOx and CO emissions under ORC 3704.03(T) and OAC rule 3745-31-05(A)(3) have been determined to be compliance with the rolling, 12-month emission limitations established pursuant to OAC rule 3745-31-05(D).

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

d. These emissions units are exempt from the requirements of OAC rule 3745-18-06 pursuant to OAC rule 3745-18-06(A).

e. SO2 emissions are considered to be negligible; therefore, no emission limitations will be included for this pollutant.

f. This regulation does not specify emission limitations for units that fire only natural gas as defined in 40 CFR 60.41c.

c) Operational Restrictions

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

a. The permittee shall burn only natural gas in these emissions units.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain monthly records of the type and quantity of fuel burned in each emissions unit.

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

(3) The combined emissions unit's maximum annual emissions for hexane are greater than 1.0 ton per year. However, modeling to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b) was not necessary because the air contaminant sources emit air contaminants solely from the combustion of natural gas (in accordance with Engineering Guide #70). The combined emissions unit's maximum annual emissions for each other toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified Permit to Install (PTI) prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the fuels, or use of new fuels, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTI.

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than NG and/or number two fuel oil was burned in this EU. Each report shall be submitted within 30 days after the deviation occurs.

(2) The permittee shall submit notification of the date of construction or reconstruction and actual startup, as provided by § 60.7 of 40 CFR Part 60 Subpart A. This notification shall include:

a. The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility; and

b. The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.

f) Testing Requirements

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

a. The emission testing shall be conducted within 6 months after issuance of the permit.

*The permittee shall test a minimum of one boiler (emissions unit B004 or B005).

b. The emission testing shall be conducted to demonstrate compliance with the lb NOx/MMBtu of actual heat input and the mass emission rate for CO.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

For NOx: Methods 1 through 4 and 7 of 40 CFR, Part 60, Appendix A.

For CO: Methods 1 through 4 and 10 of 40 CFR, Part 60, Appendix A.

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

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

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

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

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

(2) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

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

0.036 lb NOx/MMBtu; 15.13 tons NOx per rolling, 12-month period from each emissions unit individually

Applicable Compliance Method:

The permittee shall demonstrate compliance with the lb NOx/MMBtu of actual heat input emission limitation by conducting emission testing in accordance with the requirements of section f)(1).

The rolling, 12-month emission limitation was established by multiplying the 0.036 lb NOx/MMBtu of actual heat input emission limitation by the maximum heat input of 96 MMBtu/hr, then multiplying by a maximum operating schedule of 8760 hrs/yr, then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the lb/MMBtu emission limitation, compliance with the rolling, 12-month emission limitation shall also be demonstrated.

b. Emission Limitations:

3.55 lbs CO/hr; 15.56 tons CO per rolling, 12-month period from each emissions unit individually

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly CO emission limitation by conducting emission testing in accordance with the requirements of section f)(1).

The rolling, 12-month emission limitation was determined by multiplying the hourly emission limitation by a maximum operating schedule of 8760 hrs/yr, then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly emission limitation, compliance with the rolling, 12-month emission limitation shall also be demonstrated.

c. Emission Limitations:

0.48 lb PE/PM10/PM2.5/hr; 2.10 tons PE/PM10/PM2.5 per rolling, 12-month period, from each emissions unit individually

Applicable Compliance Method:

The hourly emission limitation was determined by multiplying the manufacturer-supplied emission factor of 0.005 lb of PE/PM10/PM2.5/MMBtu by the maximum heat input of 96 MMBtu/hour.

If required, compliance with the hourly emission limitation shall be determined in accordance with Methods 1-4 of 40 CFR, Part 60, Appendix A and Methods 201, 201A and 202 of 40 CFR, Part 51, Appendix M.

The rolling, 12-month emission limitation was determined by multiplying the hourly emission limitation by a maximum operating schedule of 8760 hrs/yr, then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly emission limitation, compliance with the rolling, 12-month emission limitation shall also be demonstrated.

d. Emission Limitations:

0.38 lb VOC/hr; 1.67 tons VOC per rolling, 12-month period, from each emissions unit individually

Applicable Compliance Method:

The hourly emission limitation was determined by multiplying the manufacturer-supplied emission factor of 0.004 lb of VOC/MMBtu by the maximum heat input of 96 MMBtu/hour.

If required, compliance with the hourly emission limitation shall be determined in accordance with Methods 1-4 and 18, 25 or 25A, as appropriate of 40 CFR, Part 60, Appendix A.

The rolling, 12-month emission limitation was determined by multiplying the hourly emission limitation by a maximum operating schedule of 8760 hrs/yr, then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly emission limitation, compliance with the rolling, 12-month emission limitation shall also be demonstrated.

e. Emission Limitation:

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

Applicable Compliance Method:

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

g) Miscellaneous Requirements

(1) None.

2. F001, Roadways and Parking Areas

Operations, Property and/or Equipment Description:

Roadways and Parking Areas

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)	19.18 tons fugitive particulate emissions (PE) per rolling, 12-month period 3.83 tons fugitive particulate matter less than or equal to 10 microns in size (PM10) per rolling, 12-month period 0.97 ton fugitive particulate matter less than or equal to 2.5 microns in size (PM2.5) per rolling, 12-month period No visible PE except for one minute during any 60-minute period See b)(2)a., b)(2)b. and Best Available Control Measures [See b)(2)c. through b)(2)g.]
b.	OAC rule 3745-31-05(A)(3)(a)(ii)	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PM10/PM2.5 emissions from this air contaminant source since the potential to emit is less than 10 tons/year taking into account the federally enforceable restriction in b)(1)a. above.

c.	OAC rule 3745-17-07(B)	See b)(2)h.
d.	OAC rule 3745-17-08(B)	See b)(2)h.

(2) Additional Terms and Conditions

a. The mass emission rate limitations in b)(1)a. above represent the PTE, defined as the maximum capacity to emit an air pollutant under the physical and operational design. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure compliance with these emission limitations. See f)(1)a., b, and c. for details regarding the PTE.

b. The federally enforceable emission limitations in b)(1)a. are established for the purpose of representing the potentials to emit of this emissions unit.

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

paved roadwayspaved parking areas

all paved road segments.

d. The permittee shall employ best available control measures on all paved roadways and parking areas for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's 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.

e. 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 paved roadways and parking areas that are 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.

f. 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.

g. 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.

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

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 each of the roadway segments and parking areas in accordance with the following frequencies:

paved roadways and parking areas	minimum inspection frequency
all paved roadways/parking areas	once during each week of operation

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

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

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

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

c. The dates the control measures were implemented; 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.

e) Reporting Requirements

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

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

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

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

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

19.18 tons fugitive PE per rolling, 12-month period

Applicable Compliance Method:

The maximum potential uncontrolled emission rate for paved roadways and parking areas was calculated by multiplying an emission factor of 0.316 lb per vehicle mile traveled [AP-42, section 13.2.1.2 (11/11)] by a maximum rolling, 12-month vehicle miles traveled of 121,402 and dividing by 2000 lbs per ton. Therefore, provided compliance is shown with the requirements of this permit to apply best available control measures, compliance with the rolling, 12-month fugitive PE limitation shall also be demonstrated.

b. Emission Limitation:

3.83 tons fugitive PM10 per rolling, 12-month period

Applicable Compliance Method:

The maximum potential uncontrolled emission rate for paved roadways and parking areas was calculated by multiplying an emission factor of 0.063 lb per vehicle mile traveled [AP-42, section 13.2.1.2 (11/11)] by a maximum rolling, 12-month vehicle miles traveled of 121,402 and dividing by 2000 lbs per ton. Therefore, provided compliance is shown with the requirements of this permit to apply best available control measures, compliance with the rolling, 12-month fugitive PM10 limitation shall also be demonstrated.

c. Emission Limitation:

0.97 ton PM2.5 per rolling, 12-month period

Applicable Compliance Method:

The maximum potential uncontrolled emission rate for paved roadways and parking areas was calculated by multiplying an emission factor of 0.016 lb per vehicle mile traveled [AP-42, section 13.2.1.2 (11/11)] by a maximum rolling, 12-month vehicle miles traveled of 121,402 and dividing by 2000 lbs per ton. Therefore, provided compliance is shown with the requirements of this permit to apply best available control measures, compliance with the rolling, 12-month fugitive PM2.5 limitation shall also be demonstrated.

d. Emission Limitation:

No visible particulate emissions except for one minute during any 60-minute period.

Applicable Compliance Method:

If required, 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.

g) Miscellaneous Requirements

(1) None.

3. F002, F002 DDGS Loading - Alternative

Operations, Property and/or Equipment Description:

Dried Distillers Grains with Solubles (DDGS) Loadout (uncontrolled)

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)	<u>Material Handling Emissions:</u> 2.42 tons fugitive particulate emissions (PE) per rolling, 12-month period 1.20 tons fugitive particulate matter less than or equal to 10 microns in size (PM10) per rolling, 12-month period 0.16 ton fugitive particulate matter less than or equal to 2.5 microns in size (PM2.5) per rolling, 12-month period <u>Vehicle Traffic Emissions (Inside the Building):</u> 22.61 tons fugitive PE per rolling, 12-month period 4.08 tons PM10 per rolling, 12-month period 0.42 ton fugitive PM2.5 per rolling, 12-month period

		Visible fugitive PE shall not exceed 5% opacity, as a three-minute average See b)(2)a.
b.	OAC rule 3745-31-05(A)(3)(a)(ii)	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PM10/PM2.5 emissions from this air contaminant source since the potential to emit is less than 10 tons/year taking into account the federally enforceable restriction in c)(1).
c.	OAC rule 3745-17-07(B)	See b)(2)b.
d.	OAC rule 3745-17-08(B)	See b)(2)b.

(2) Additional Terms and Conditions

a. The federally enforceable emission limitations in b)(1)a. were established for the purpose of limiting PTE to avoid PSD and MACT applicability. The federally enforceable emission limitations are based on the operational restrictions contained in c)(1).

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

c) Operational Restrictions

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

a. The maximum throughput rate for this emissions unit shall not exceed 402,857 tons DDGS, based upon a rolling, 12-month summation of the throughput rates.

d) Monitoring and/or Recordkeeping Requirements

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

a. The DDGS throughput, in tons per month; and

b. The rolling, 12-month summation of the throughput rates.

(2) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or

absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. The location and 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 emissions incident; and

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

If visible emissions are present, a visible emissions incident has occurred. The observer does not have to document the exact start and end times for the visible emissions incident under item d)(2)d. above or continue the daily check until the incident has ended. The observer may indicate that the visible emissions 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 quarterly deviation (excursion) reports that identify the following:

a. All exceedances of the rolling, 12-month limitation of the material throughput, in tons, for this emissions unit in c)(1)a.;

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

c. Any corrective actions taken to eliminate the visible emissions of fugitive dust.

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

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

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

2.42 tons fugitive PE per rolling, 12-month period from material handling

Applicable Compliance Methods:

The emission limitation was established using the following emission factors:

Multiplying an AP-42 emission factor of 0.006 lb PE/ton from DDGS handling [Section 13.2.4 (11/06)] by a maximum DDGS throughput of 402,857 tons*, then dividing by 2000 lbs/ton, then multiplying by two to account for the multiple drop points. Therefore, provided compliance is demonstrated with the rolling, 12-month throughput restriction, compliance with the rolling, 12-month emission limitation shall also be demonstrated.

*The DDGS throughput of 402,857 tons has been calculated to be the maximum amount of DDGS that can be generated from this facility (which has a rolling, 12-month throughput restriction of 123,076,923 gallons of ethanol, see emissions unit J001) and; therefore, effectively restricts throughput in this emissions unit as well.

b. Emission Limitation:

1.20 tons fugitive PM10 per rolling, 12-month period material handling

Applicable Compliance Methods:

The emission limitation was established using the following emission factors:

Multiplying an AP-42 emission factor of 0.003 lb PM10/ton from DDGS handling [Section 13.2.4 (11/06)] by a maximum rolling, 12-month DDGS throughput of 402,857 tons*, then dividing by 2000 lbs/ton, then multiplying by two to account for the multiple drop points. Therefore, provided compliance is demonstrated with the rolling, 12-month throughput restriction, compliance with the rolling, 12-month emission limitation shall also be demonstrated.

*The DDGS throughput of 402,857 tons has been calculated to be the maximum amount of DDGS that can be generated from this facility (which has a rolling, 12-month throughput restriction of 123,076,923 gallons of denatured ethanol, see emissions unit J001) and; therefore, effectively restricts throughput in this emissions unit as well.

c. Emission Limitation:

0.16 ton fugitive PM2.5 per rolling, 12-month period material handling

Applicable Compliance Methods:

The emission limitation was established using the following emission factors:

Multiplying an AP-42 emission factor of 0.0004 lb PM2.5/ton from DDGS handling [Section 13.2.4 (11/06)] by a maximum rolling, 12-month DDGS throughput of 402,857 tons*, then dividing by 2000 lbs/ton, then multiplying by two to account for the multiple drop points. Therefore, provided compliance is demonstrated with the rolling, 12-month throughput restriction, compliance with the rolling, 12-month emission limitation shall also be demonstrated.

*The DDGS throughput of 402,857 tons has been calculated to be the maximum amount of DDGS that can be generated from this facility (which has a rolling, 12-month

throughput restriction of 123,076,923 gallons of ethanol, see emissions unit J001) and; therefore, effectively restricts throughput in this emissions unit as well.

d. Emission Limitation:

22.61 tons fugitive PE per rolling, 12-month period from vehicle traffic

Applicable Compliance Method:

The maximum potential uncontrolled emission rate for roadways and parking areas was calculated by multiplying an emission factor of 3.27 lb per vehicle mile traveled [AP-42, section 13.2.2 (11/06)] by a maximum rolling, 12-month vehicle miles traveled of 13,828 and dividing by 2000 lbs per ton.

e. Emission Limitation:

4.08 tons fugitive PM10 per rolling, 12-month period from vehicle traffic

Applicable Compliance Method:

The maximum potential uncontrolled emission rate for roadways and parking areas was calculated by multiplying an emission factor of 0.59 lb per vehicle mile traveled [AP-42, section 13.2.2-1 (11/06)] by a maximum rolling, 12-month vehicle miles traveled of 13,828 and dividing by 2000 lbs per ton.

f. Emission Limitation:

0.42 ton fugitive PM2.5 per rolling, 12-month period from vehicle traffic

Applicable Compliance Method:

The maximum potential uncontrolled emission rate for roadways and parking areas was calculated by multiplying an emission factor of 0.06 lb per vehicle mile traveled [AP-42, section 13.2.2-1 (11/06)] by a maximum rolling, 12-month vehicle miles traveled of 13,828 and dividing by 2000 lbs per ton.

g. Emission Limitation:

Visible fugitive PE shall not exceed 5% opacity, as a three-minute average

Applicable Compliance Method:

If required, compliance with the visible fugitive emission limitation shall be determined in accordance with Method 9 as set forth in “Appendix on Test Methods” in 40 CFR, Part 60, (“Standards of Performance for New Stationary Sources”) and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(d) of OAC rule 3745-17-03.

g) Miscellaneous Requirements

(1) None.

4. J001, J001 Ethanol Loadout

Operations, Property and/or Equipment Description:

Ethanol loadout (truck and railcar) controlled by two flares

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

(1) b)(1)f., d)(5) through d)(10), e)(2) and e)(3).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)	<u>Loadout Emissions:</u> 13.59 lbs volatile organic compounds (VOC)/hr; 8.72 tons VOC per rolling, 12-month period <u>Flare Combustion Emissions:</u> 10.54 lbs carbon monoxide (CO)/hr; 36.03 tons CO per rolling, 12-month period 2.31 lbs nitrogen oxides (NOx)/hr; 7.90 tons NOx per rolling, 12-month period 4.32 lb VOC/hr; 14.76 tons VOC per rolling, 12-month period No visible particulate emissions (PE) except for periods not to exceed 5 minutes during any two consecutive hours See b)(2)a. and b)(2)e.
b.	ORC 3704.03(T)	See b)(2)b.

	OAC rule 3745-31-05(A)(3)	
c.	OAC rule 3745-31-05(A)(3)(a)(ii)	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the NOx, particulate matter less than or equal to 10 microns in size (PM10), particulate matter less than or equal to 2.5 microns in size (PM2.5) and sulfur dioxide (SO2) emissions from this air contaminant source since the potential to emit is less than 10 tons/year taking into account the federally enforceable restriction in c)(1) and c)(2).
d.	OAC rule 3745-17-07(A)	See b)(2)c.
e.	OAC rule 3745-17-11(B)	See b)(2)d.
f.	ORC 3704.03(F) OAC rule 3745-114-01	See d)(5) through d)(10), e)(2) and e)(3).

(2) Additional Terms and Conditions

a. The federally enforceable emission limitations in b)(1)a. are established for the purpose of limiting PTE* to avoid PSD and MACT applicability. The federally enforceable emission limitations are based on the operational restrictions contained in c)(1) and c)(2).

*PTE is based on the worst case emissions (i.e., 100% truck loadout at a 300 gallon per minute loading rate to flare #2).

b. The Best Available Technology (BAT) requirements for VOC, CO, and NOx emissions under ORC 3704.03(T) and OAC rule 3745-31-05(A)(3) have been determined to be compliance the rolling, 12-month emission limitations established pursuant to OAC rule 3745-31-05(D).

c. This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(A) pursuant to OAC rule 3745-17-07(A)(3)(h) because this emissions unit is not subject to the requirements of OAC rule 3745-17-11.

d. The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 lbs/hr. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(I), Figure II of OAC rule 3745-17-11 does not apply. Table I of OAC rule 3745-17-11 does not apply because the process weight rate, as defined in OAC rule 3745-17-01(B)(14) does not include gaseous fuels used solely as a fuel for the flare as a control device.

e. SO2 and PM10/PM2.5 emissions are considered to be negligible; therefore, no emission limitations will be included for these pollutants.

c) Operational Restrictions

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

a. All process vent emissions from liquid loadout operations shall be combusted in a flare.

b. A flare system shall be used whenever this air contaminant source (truck and railcar loading) is in operation with minimum control efficiency of 98%, by weight for VOC; and

c. The maximum throughput rate for this emissions unit (truck and railcar loading, combined) shall not exceed 123,076,923 gallons of denatured ethanol (120,000,000 gallons of undenatured ethanol and 3,076,923 gallons of gasoline, combined), based upon a rolling, 12-month summation of the throughput rates.

Note: The rolling, 12-month restrictions were previously established in PTI P0123848, issued August 14, 2018. Since rolling throughput records exist from this previously issued PTI, it is not necessary to establish federally enforceable restrictions for the first 12 months of operation under the provisions of this permit.

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

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

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

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

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

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

(3) The permittee shall operate the flare when this emissions unit is in operation.

d) Monitoring and/or Recordkeeping Requirements

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

a. The undenatured ethanol throughput, in gallons per month and total gallons;

b. The gasoline throughput, in gallons per month and total gallons;

c. The rolling, 12-month summation of the throughput rates.

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

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

b. The permittee shall maintain records of the following:

i. Records of all periods when the flare pilot flame is absent;

ii. Periods when the closed vent system and flare are not operated as designed; and

iii. Dates of start-ups and shutdowns of the closed vent system and flare.

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

(3) The permittee shall perform weekly checks, when the emissions unit is in operation, for visible emissions from each flare. The presence or absence of any visible emissions shall be noted in an operations log, including the date and time the weekly check was performed. If visible emissions are observed, the permittee shall also record the following in the operations log:

a. The total duration of any visible emission incident; and

b. Any corrective actions taken to eliminate the visible emissions.

(4) The permittee shall maintain records during all periods of time the emissions unit was not vented to one of the flares.

(5) Modeling to demonstrate compliance with the *Toxic Air Contaminant Statute*, ORC 3704.03(F)(4)(b), was not necessary because the change to the emissions units' maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1 TPY for the project* (not including hexane emissions from natural gas-fired emissions units). OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified PTIO prior to making a *modification* as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1 TPY, may require the permittee to apply for and obtain a new PTIO.

*The project involves increasing the annual undenatured ethanol production from 90 to 120 million gallons per year, including the installation of new equipment (including control equipment) and several facility upgrades to support the increased production. Updated air toxics modeling was not required for J001, P002, P004, P903, and B001-B003. The material specifications and throughput increases are minimal; therefore, no changes were made that require a new air toxics analysis.

(6) The PTI application (A0073433) for these emissions units, J001, P002, P004, P903 and B001-B003, were evaluated based on the actual materials and the design parameters of the emissions units' exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to these emissions units for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each

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

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

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

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

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

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

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

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

   Toxic Contaminant: Formaldehyde

   Ohio Alternative Health Based Standards (ug/m3): 49 one-hour maximum and 0.8 as an annual average

   Maximum Hourly Emission Rate (lbs/hr): 0.10641667 (modeled total)

   Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 6.23

   Predicted annual average concentration (ug/m3): 0.4052

Toxic Contaminant: Hexane

TLV (mg/m3): 176 (From ACGIH's "2022 TLVs and BEIs" Book)

Maximum Hourly Emission Rate (lbs/hr): 0.645(modeled total)

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1.0224

MAGLC (ug/m3): 4,196

Toxic Contaminant: Methanol

TLV (mg/m3): 262 (From ACGIH's "2022 TLVs and BEIs" Book)

Maximum Hourly Emission Rate (lbs/hr): 0.0118 (modeled total)

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.0002517

MAGLC (ug/m3): 6,240

The permittee has demonstrated that emissions of hexane and methanol, from emissions units J001, P002, P004, P903 and B001-B003, is calculated to be less than eighty percent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

The permittee, having demonstrated that emissions of formaldehyde, from emissions units J001, P002, P004, P903 and B001-B003, is estimated to be less than 80 percent of the maximum acceptable limits above based upon "Ohio's alternative health based standard", shall not operate the emissions unit(s) at a rate that would exceed the short-term allowable emission rate, process weight rate, and/or restricted hours of operations, as allowed in this permit; and any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Ohio's alternative health based standard" for formaldehyde.

(7) Prior to making any physical changes to or changes in the method of operation of these emissions units, that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration, the permittee shall re-model the change(s) to demonstrate that the MAGLC, for hexane and methanol, and "Ohio's alternative health based standard", for formaldehyde, has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:

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

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

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

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

(8) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F) and "Ohio's alternative health based standard":

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

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

c. The one-hour maximum and annual average for each significant toxic contaminant or worst-case contaminant, calculated in accordance with "Ohio's alternative health based standard";

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

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

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

(10) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with "Ohio's alternative health based standard", through the predicted 1-hour maximum ground-level concentration and annual average. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

e) Reporting Requirements

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

a. All exceedances of the rolling, 12-month limitation of the material throughputs, in gallons, for this emissions unit in c)(1);

b. All times when the emissions unit was not vented to the flare;

c. Exceedances of all monitoring parameters;

d. Periods of time when the closed vent system stream is diverted from system control devices;

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

f. All periods of time when required monitoring data was not collected;

g. All days during which any visible particulate emissions were observed from the flare serving this emissions unit; and

h. Any corrective actions taken to eliminate the visible particulate emissions.

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

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

a. The original model input;

b. The updated model input;

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

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

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

If no changes to the emissions, emissions unit, or the exhaust stack have been made during the reporting period, then the report shall include a statement to that effect. This report shall be postmarked or delivered no later than January 31 following the end of each calendar year.

(3) The permittee shall submit annual reports that include any changes to any parameter or value used in the dispersion model used to demonstrate compliance with the "Ohio's alternative

health based standard", through the predicted 1 hour maximum concentration. The report should include:

a. The original model input;

b. The updated model input;

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

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

e. A statement that the model results indicate that the 1-hour maximum ground-level concentration maintains compliance with "Ohio's alternative health based standard".

If no changes to the emissions, emissions unit(s), or the exhaust stack have been made during the reporting period, then the report shall include a statement to that effect. This report shall be postmarked or delivered no later than January 31 following the end of each calendar year.

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

13.59 lbs VOC/hr (loadout emissions)

Applicable Compliance Method:

The emission limitation above represents the potential to emit*; therefore, no monitoring, record keeping, reporting or compliance method calculations are required.

*The potential to emit was calculated by using the following:

While loading three trucks (worst case scenario):

7.08 lb VOC/1000 gallons truck loadout [determined through the methodology in AP-42, section 5.2.2 (6/08)] multiplied by the maximum hourly denatured ethanol throughput at the truck loadout of 96,000 gallons, then applying a 98% control efficiency.

b. Emission Limitation:

8.72 tons VOC per rolling, 12-month period (loadout emissions)

Applicable Compliance Method:

The rolling, 12-month emission limitation was calculated by multiplying the uncontrolled emission factor of 7.08 lb/1000 gallons, as determined through the methodology in AP-42, section 5.2.2 (6/08) by the maximum rolling, 12-month denatured ethanol throughput of 123,076,923 gallons, dividing by 2000 lbs/ton, then applying a 98% control efficiency. Therefore, provided compliance is shown with the rolling, 12-month throughput restriction, compliance with the rolling, 12-month emission limitation shall also be demonstrated.

c. Emission Limitations:

10.54 lbs CO/hr; 36.03 tons CO per rolling, 12-month period

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be determined by multiplying the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th edition, Table 13.5-2 (2/18) of 0.31 lb CO/MMBtu by a maximum heat input of 34 MMBtu/hr.

If required, compliance with the hourly emission limitation shall be determined in accordance with Methods 1-4 and 10 of 40 CFR, Part 60, Appendix A.

The rolling, 12-month emission limitation was determined by multiplying the hourly emission limitation by a maximum operating schedule of 6838 hrs/yr*, then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly emission limitation, compliance with the rolling, 12-month emission limitation shall also be demonstrated.

*The maximum operating schedule has been calculated based on the rolling, 12-month throughput restriction in c)(1)c. and a saturation factor of the ethanol to correlate the MMBtu with the volume of ethanol loaded.

d. Emission Limitations:

2.31 lbs NOx/hr; 7.90 tons NOx per rolling, 12-month period

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be determined by multiplying the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th edition, Table 13.5-1 (2/18) of 0.068 lb NOx/MMBtu by a maximum heat input of 34 MMBtu/hr.

If required, compliance with the hourly emission limitation shall be determined in accordance with Methods 1-4 and 7 of 40 CFR, Part 60, Appendix A.

The rolling, 12-month emission limitation was determined by multiplying the hourly emission limitation by a maximum operating schedule of 6838 hrs/yr*, then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly emission limitation, compliance with the rolling, 12-month emission limitation shall also be demonstrated.

*The maximum operating schedule has been calculated based on the rolling, 12-month throughput restriction in c)(1)c. and a saturation factor of the ethanol to correlate the MMBtu with the volume of ethanol loaded.

e. Emission Limitations:

4.32 lb VOC/hr; 14.76 tons VOC per rolling, 12-month period (combustion)

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be determined by multiplying the emission factor of 0.052 lb VOC/MMBtu (submitted by the permittee on in permit application A0082482) by a maximum heat input of 34 MMBtu/hr.

If required, compliance with the hourly emission limitation shall be determined in accordance with Methods 1-4 and 18, 25 or 25A, as appropriate, of 40 CFR, Part 60, Appendix A.

The rolling, 12-month emission limitation was determined by multiplying the hourly emission limitation by a maximum operating schedule of 6838 hrs/yr*, then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly emission limitation, compliance with the rolling, 12-month emission limitation shall also be demonstrated.

*The maximum operating schedule has been calculated based on the rolling, 12-month throughput restriction in c)(1)c. and a saturation factor of the ethanol to correlate the MMBtu with the volume of ethanol loaded.

f. Emission Limitation:

No visible PE except for periods not to exceed 5 minutes during any two consecutive hours

Applicable Compliance Method:

If required, compliance with the visible PE limitation shall be determined in accordance with Method 22 of 40 CFR, Part 60, Appendix A.

g) Miscellaneous Requirements

(1) None.

5. P001, Three Hammermills with Baghouse

Operations, Property and/or Equipment Description:

Three Hammermills with Baghouse

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)	Stack Emissions: 0.005 grain particulate emissions (PE)/ particulate matter less than or equal to 10 microns in size (PM10)/particulate matter less than or equal to 2.5 microns in size (PM2.5)/dry standard cubic foot (dscf); 4.51 tons PE per rolling, 12-month period 1.13 tons PM10/PM2.5 per rolling, 12-month period Visible stack PE shall not exceed 0% opacity, as a six-minute average Fugitive Emissions: 0.36 ton PE per rolling, 12-month period 0.18 ton PM10/PM2.5 per rolling, 12-month period

		Visible fugitive PE shall not exceed 5% opacity, as a three-minute average See b)(2)a.
b.	OAC rule 3745-31-05(A)(3)(a)(ii)	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PM10/PM2.5 emissions from this air contaminant source since the potential to emit is less than 10 tons/year taking into account the federally enforceable restriction in c)(1).
c.	OAC rule 3745-17-07(A)	See b)(2)b.
d.	OAC rule 3745-17-11(B)	See b)(2)b.
e.	OAC rule 3745-17-07(B)	See b)(2)b.
f.	OAC rule 3745-17-08(B)	See b)(2)b.

(2) Additional Terms and Conditions

a. The federally enforceable emission limitations in b)(1)a. are established for the purpose of limiting PTE to avoid PSD and MACT applicability. The federally enforceable emission limitations are based on the operational restrictions contained in c)(1).

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

c) Operational Restrictions

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

a. The use of a baghouse achieving a maximum outlet concentration of 0.005 grain/dscf for PE/PM10/PM2.5; and

b. The maximum throughput rate for this emissions unit shall not exceed 1,200,000 tons grain, based upon a rolling, 12-month summation of the throughput rates.

Note: The rolling, 12-month restrictions were previously established in PTI P0123848, issued August 14, 2018. Since rolling throughput records exist from this previously issued PTI, it is not necessary to establish federally enforceable restrictions for the first 12 months of operation under the provisions of this permit.

(2) The permittee shall operate the baghouse when this emissions unit is in operation.

d) Monitoring and/or Recordkeeping Requirements

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

a. The total grain throughput for each month; and

b. The rolling, 12-month summation of the grain throughput.

(2) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack and for any visible emissions of fugitive dust 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. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. The location and 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 emissions incident; and

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

If visible emissions are present, a visible emissions incident has occurred. The observer does not have to document the exact start and end times for the visible emissions incident under d)(2)d. above or continue the weekly check until the incident has ended. The observer may indicate that the visible emissions 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.

(3) The permittee shall maintain records during all periods of time the emissions unit was not vented to the baghouse.

e) Reporting Requirements

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

a. All exceedances of the rolling, 12-month limitation of the material throughput, in tons, for this emissions unit in c)(1);

b. All times when the emissions unit was not vented to the baghouse;

c. All days during which any visible particulate emissions were observed from the stack serving this emissions unit;

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

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

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

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

0.005 grain PE/PM10/PM2.5/dscf

Applicable Compliance Method:

Compliance with the allowable grain outlet concentration has been demonstrated by performance testing conducted on June 14, 2011.

If required, the permittee shall demonstrate compliance with the grain/dscf emission limitation by conducting emission testing in accordance with the methods and procedures specified in Methods 1-5 of 40 CFR, Part 60, Appendix A and Methods 201, 201A and 202 of 40 CFR, Part 51, Appendix M. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

b. Emission Limitation:

4.51 tons PE per rolling, 12-month period (stack)

Applicable Compliance Method:

The rolling, 12-month emission limitation was developed by multiplying the maximum outlet concentration of 0.005 grain/dscf by a maximum volumetric air flow rate of 24,000 acfm by 60 min/hr and applying a conversion factor of 1 lb/7000 grains, then multiplying by a maximum operating schedule of 8760 hrs/yr, then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the maximum grain outlet concentration, compliance with the rolling, 12-month emission limitation shall also be demonstrated.

c. Emission Limitation:

1.13 tons PM10/PM2.5 per rolling, 12-month period (stack)

Applicable Compliance Method:

The rolling, 12-month emission limitation was based on AP-42 Chapter 9 data that PM10 is assumed to be 25 percent of the total PE. Therefore, provided compliance is shown with the maximum grain outlet concentration, compliance with the rolling, 12-month emission limitation shall also be demonstrated.

d. Emission Limitation:

Visible stack PE shall not exceed 0% opacity, as a six-minute average

Applicable Compliance Method:

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

e. Emission Limitation:

0.36 ton fugitive PE per rolling, 12-month period

Applicable Compliance Method:

The emission limitation was established using the following emission factors:

Multiplying an AP-42 emission factor of 0.012 lb PE/ton from grain hammermilling [Table 9.9.1-1 (3/03)] by a maximum rolling, 12-month grain throughput of 1,200,000 tons grain*, then dividing by 2000 lbs/ton and applying a 95% capture efficiency for the use of total enclosure with aspiration to a baghouse. Therefore, provided compliance is demonstrated with the rolling, 12-month throughput restriction, compliance with the rolling, 12-month emission limitation shall also be demonstrated.

*This limit is established as a maximum rolling, 12-month throughput in emissions unit P901, grain receiving, and; therefore, effectively restricts throughput in this emissions unit as well.

f. Emission Limitation

0.18 ton fugitive PM10/PM2.5 per rolling, 12-month period

Applicable Compliance Method:

The emission limitation was established using the following emission factors:

Multiplying an AP-42 emission factor of 0.006 lb PM10/PM2.5/ton from grain scalping [Table 9.9.1-1 (3/03)] by a maximum rolling, 12-month grain throughput of 1,200,000 tons grain*, then dividing by 2000 lbs/ton and applying a 95% capture efficiency for the use of total enclosure with aspiration to a baghouse. Therefore, provided compliance is demonstrated with the rolling, 12-month throughput restriction, compliance with the rolling, 12-month emission limitation shall also be demonstrated.

*This limit is established as a maximum rolling, 12-month throughput in emissions unit P901, grain receiving, and; therefore, effectively restricts throughput in this emissions unit as well.

g. Emission Limitation:

Visible fugitive PE shall not exceed 5% opacity, as a three-minute average

Applicable Compliance Method:

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

g) Miscellaneous Requirements

(1) None.

6. P002, P002 Ethanol Production Operations

Operations, Property and/or Equipment Description:

Ethanol production including the centrifuges and two 45 mmBtu/hr DDGS dryers controlled by an RTO. Uncontrolled process equipment associated with this emissions unit include the whole and thin stillage tanks, syrup tank, tricanter, slurry tank, liquefaction tanks, and cook water tanks.

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

(1) b)(1)h., d)(10) through d)(15), e)(3) and e)(4).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)	<u>RTO Stack Emissions:</u> 10.80 lbs nitrogen oxides (NOx)/hr; 47.30 tons NOx per rolling, 12-month period 9.88 lbs carbon monoxide (CO)/hr; 43.30 tons CO per rolling, 12-month period 7.00 lbs volatile organic compounds (VOC)/hr; 30.66 tons VOC per rolling, 12-month period 9.13 lbs sulfur dioxide (SO2)/hr; 40.00 tons SO2 per rolling, 12-month period 5.00 lbs particulate emissions (PE)/ particulate matter less than or equal to 10 microns in size (PM10)/particulate matter less than or equal to 2.5 microns in size

		(PM2.5)/hr; 21.90 tons PE/PM10/PM2.5 per rolling, 12-month period Visible stack PE shall not exceed 10% opacity, as a six-minute average <u>Fugitive Emissions:</u> 15.73 tons VOC per rolling, 12-month period No visible fugitive PE from any building openings associated with this emissions unit See b)(2)a., b)(2)e. and Facility-Wide Terms and Conditions B.2. through B.3.
b.	ORC 3704.03(T) OAC rule 3745-31-05(A)(3)	See b)(2)b.
c.	OAC rule 3745-17-07(A)	See b)(2)c.
d.	OAC rule 3745-17-11(B)	See b)(2)c.
e.	OAC rule 3745-18-06(E)(2)	See b)(2)c.
f.	OAC rule 3745-21-09(DD)	See b)(2)d. and g)(1).
g.	40 CFR, Part 60, Subpart VVa	See b)(2)d. and g)(1).
h.	ORC 3704.03(F) OAC rule 3745-114-01	See d)(10) through d)(15), e)(3) and e)(4).

(2) Additional Terms and Conditions

a. The federally enforceable emission limitations in b)(1)a. are established for the purpose of limiting PTE to avoid PSD and MACT applicability. The federally enforceable emission limitations are based on the operational restrictions contained in c)(1).

b. The BAT requirements for NOx, CO, VOC, SO2 and PM10/PM2.5 emissions under ORC 3704.03(T) and OAC rule 3745-31-05(A)(3) have been determined to be compliance with the rolling, 12-month period emission limitations established pursuant to OAC rule 3745-31-05(D).

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

d. 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 (including operational

restrictions, monitoring and record keeping, reporting and testing) of OAC rule 3745-21-09(DD) leaks from process units that produce organic chemicals and 40 CFR, Part 60, Subpart VVa (Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry).

e. Emissions associated with the tricanter operations are considered negligible and will not be included in the permit.

c) Operational Restrictions

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

a. Emissions shall be vented to a thermal oxidizer that is designed to achieve a minimum 95% destruction efficiency for VOC;

b. The permittee shall burn only natural gas in the dryers;

c. The dryers shall be continuously maintained at or below a value to be determined by design information, and/or manufacturer's data [See condition g)(3) for the establishment of the temperature of the dryers]; and

d. The permittee shall implement a fugitive LDAR program for all the miscellaneous process equipment associated with this emissions unit.

(2) The permittee shall operate the thermal oxidizer when this emissions unit is in operation.

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 each dryer.

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

a. The calculated emissions of VOC*, in tons; and

b. The rolling, 12-month emissions of VOC, in tons.

*Emissions of VOC shall be calculated using the emissions data collected during the most recent performance test conducted on this emissions unit, as well as any site specific information available to the permittee. The monthly emissions shall include any emissions associated with startups, shutdowns, or process upsets, if applicable, but shall not include fugitive VOC emissions addressed under the facilities LDAR program.

(3) The acceptable combustion temperature within the thermal oxidizer, during any period 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.

The temperature range/limit is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by Ohio EPA NWDO. The permittee may request revisions to the permitted temperature range/limit based upon information obtained

during future performance tests that demonstrate compliance with the allowable emission rates for the controlled pollutants. In addition, approved revisions to the temperature range/limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

(4) The permittee shall properly install, operate, and maintain 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 acceptable temperature setting shall be based upon the manufacturer's specifications until such time as any required performance testing is conducted and the appropriate temperature range is established to demonstrate compliance. Following compliance testing, 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.

(5) The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the temperature within the dryers when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modification deemed necessary by the permittee. The permittee shall collect and record all time periods during which the maximum temperature within the dryers, when the emissions unit is in operation, is more than the maximum temperature requirement in sections c)(1)c. and g)(3).

(6) Whenever the following monitored parameters deviate from the range(s) or limit(s) established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation(s):

a. Average combustion temperature within the thermal oxidizer;

b. Maximum operating temperature for each dryer.

(7) The permittee shall maintain records of the following information for each investigation required in d)(6):

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/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:

f. A description of the corrective action;

g. The date corrective action was completed;

h. The date and time the deviation ended;

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

j. The temperature readings immediately after the corrective action was implemented; and

k. 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.

(8) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive PE from any egress points (i.e., building windows, doors, roof monitors, etc.) associated with this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log, including the date and time the weekly check was performed. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. The location and color of the emissions;

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

c. Any corrective actions taken to minimize or eliminate the visible emissions.

(9) The permittee shall maintain records during all periods of time the emissions unit was not vented to the thermal oxidizer.

(10) Modeling to demonstrate compliance with the *Toxic Air Contaminant Statute*, ORC 3704.03(F)(4)(b), was not necessary because the change to the emissions units' maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1 TPY for the project* (not including hexane emissions from natural gas-fired emissions units). OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified

PTIO prior to making a *modification* as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1 TPY, may require the permittee to apply for and obtain a new PTIO.

*The project involves increasing the annual undenatured ethanol production from 90 to 120 million gallons per year, including the installation of new equipment (including control equipment) and several facility upgrades to support the increased production. Updated air toxics modeling was not required for J001, P002, P004, P903, and B001-B003. The material specifications and throughput increases are minimal; therefore, no changes were made that require a new air toxics analysis.

(11) The PTI application (A0073433) for these emissions units, J001, P002, P004, P903 and B001-B003, were evaluated based on the actual materials and the design parameters of the emissions units' exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to these emissions units for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as AERSCREEN, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

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

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

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

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

c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit, i.e., "**X**" hours per day and "**Y**" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and

shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

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

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

Toxic Contaminant: Formaldehyde

Ohio Alternative Health Based Standards (ug/m3): 49 one-hour maximum and 0.8 as an annual average

Maximum Hourly Emission Rate (lbs/hr): 0.10641667 (modeled total)

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 6.23

Predicted annual average concentration (ug/m3): 0.4052

Toxic Contaminant: Hexane

TLV (mg/m3): 176 (From ACGIH's "2022 TLVs and BEIs" Book)

Maximum Hourly Emission Rate (lbs/hr): 0.645(modeled total)

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1.0224

MAGLC (ug/m3): 4,196

Toxic Contaminant: Methanol

TLV (mg/m3): 262 (From ACGIH's "2022 TLVs and BEIs" Book)

Maximum Hourly Emission Rate (lbs/hr): 0.0118 (modeled total)

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.0002517

MAGLC (ug/m3): 6,240

The permittee has demonstrated that emissions of hexane and methanol, from emissions units J001, P002, P004, P903 and B001-B003, is calculated to be less than eighty percent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

The permittee, having demonstrated that emissions of formaldehyde, from emissions units J001, P002, P004, P903 and B001-B003, is estimated to be less than 80 percent of the maximum acceptable limits above based upon "Ohio's alternative health based standard", shall not operate the emissions unit(s) at a rate that would exceed the short-term allowable emission rate, process weight rate, and/or restricted hours of operations, as allowed in this permit; and any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Ohio's alternative health based standard" for formaldehyde.

(12) Prior to making any physical changes to or changes in the method of operation of these emissions units, that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration, the permittee shall re-model the change(s) to demonstrate that the MAGLC, for hexane and methanol, and "Ohio's alternative health based standard", for formaldehyde, has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:

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

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

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

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

(13) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F) and "Ohio's alternative health based standard":

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

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

c. The one-hour maximum and annual average for each significant toxic contaminant or worst-case contaminant, calculated in accordance with "Ohio's alternative health based standard";

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

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

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

(15) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with "Ohio's alternative health based standard", through the predicted 1-hour maximum ground-level concentration and annual average. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

e) Reporting Requirements

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

a. All 3-hour blocks of time (when the emissions unit was in operation) during which the following parameters were outside of the range(s) or limit(s) specified by the manufacturer and/or outside of the acceptable range(s) or limit(s) following any required compliance demonstration:

i. Average combustion temperature within the thermal oxidizer; and/or

ii. Maximum operating temperature for each dryer.

b. Any records of downtime (date and length of time) for the capture (collection) system, the thermal oxidizer, and/or the monitoring equipment when the emissions unit was in operation;

c. A log of the operating time for the capture system, thermal oxidizer, monitoring equipment, and the emissions unit;

d. All times when the emissions unit was not vented to the thermal oxidizer;

e. All instances during which any visible fugitive particulate emissions were observed from the area immediately above the capture system serving this emissions unit; and

f. Any corrective actions taken to eliminate the visible fugitive particulate emissions.

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

(2) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in the dryers. Each report shall be submitted within 30 days after the deviation occurs.

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

a. The original model input;

b. The updated model input;

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

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

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

If no changes to the emissions, emissions unit, or the exhaust stack have been made during the reporting period, then the report shall include a statement to that effect. This report shall be postmarked or delivered no later than January 31 following the end of each calendar year.

(4) The permittee shall submit annual reports that include any changes to any parameter or value used in the dispersion model used to demonstrate compliance with the "Ohio's alternative health based standard", through the predicted 1 hour maximum concentration. The report should include:

a. The original model input;

b. The updated model input;

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

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

e. A statement that the model results indicate that the 1-hour maximum ground-level concentration maintains compliance with "Ohio's alternative health based standard".

If no changes to the emissions, emissions unit(s), or the exhaust stack have been made during the reporting period, then the report shall include a statement to that effect. This report shall be postmarked or delivered no later than January 31 following the end of each calendar year.

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitations:

10.80 lbs NOx/hr; 47.30 tons NOx per rolling, 12-month period

9.88 lbs CO/hr; 43.30 tons CO per rolling, 12-month period

5.00 lbs PE/PM10/PM2.5/hr; 21.90 tons PE/PM10/PM2.5 per rolling, 12-month period

Applicable Compliance Method:

Compliance with the hourly mass emission limitations shall be demonstrated in accordance with the performance testing required in section f)(2) below.

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

b. Emission Limitations:

9.13 lbs SO2/hr; 40.00 tons SO2 per rolling, 12-month period

Applicable Compliance Method:

Compliance with the hourly mass emission limitations shall be demonstrated in accordance with the performance testing required in section f)(2) below.

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

c. Emission Limitations:

7.00 lbs VOC/hr; 30.66 tons VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance with the hourly mass emission limitations shall be demonstrated in accordance with the performance testing required in section f)(2) below.

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

d. Emission Limitation:

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

Applicable Compliance Method:

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

e. Emission Limitation:

15.73 tons fugitive VOC per rolling, 12-month period

Applicable Compliance Method:

The rolling, 12-month emission limitation was developed by multiplying the respective emission factors and control efficiencies of all the proposed equipment subject to the LDAR program, as submitted by the permittee in the submitted by the permittee in permit application A0082482. Therefore, provided compliance is shown with the LDAR program as described in condition b)(2)d. and g)(1), compliance with the rolling, 12-month emission limitation shall also be demonstrated.

f. Emission Limitation:

No visible fugitive PE from any building openings associated with this emissions unit

Applicable Compliance Method:

If required, compliance with visible PE limitation shall be determined in accordance with Method 22 of 40 CFR, Part 60, Appendix A.

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

a. The emissions testing shall be conducted within 6 months after the emissions unit has been modified.

b. The emission testing shall be conducted to demonstrate compliance with the VOC, NOx, CO, PE/PM10/PM2.5 and SO2 mass emission limitations from the thermal oxidizer controlling this emissions unit. Emission testing shall also be conducted to demonstrate compliance with the control efficiency limitation for VOCs from the thermal oxidizer controlling this emissions unit. Upon receipt and review of test results for these pollutants, Ohio EPA will determine whether additional emission testing is required during the five-year permit term in accordance with Engineering Guide No. 16.

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

For NOx: Methods 1-4 and 7 of 40 CFR, Part 60, Appendix A;

For CO: Methods 1-4 and 10 of 40 CFR, Part 60, Appendix A;

For PE/PM10/PM2.5: Method 1-5 of 40 CFR, Part 60, Appendix A and Methods 201, 201A and 202 of 40 CFR, Part 51, Appendix M.

For VOC: Methods 1-4 and 18, 25 or 25A, as appropriate, of 40 CFR, Part 60, Appendix A; and

For SO2: Methods 1-4 and 6 of 40 CFR, Part 60, Appendix A

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

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

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

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

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

g) Miscellaneous Requirements

(1) Within 180 days of the issuance of this permit, the permittee shall update the existing onsite fugitive 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, record keeping, reporting and testing) of OAC rule 3745-21-09(DD) and 40 CFR, Part 60, Subpart VVa.

(2) Within 180 days of the issuance of this permit, the permittee shall update the existing startup, shutdown and malfunction (SSM) plan. This plan must be maintained on site and is subject to review and approval of Ohio EPA NWDO.

(3) The permittee shall submit information specifying the maximum operating temperature for each dryer [See c)(1)c.]. The information shall be submitted in association with the "Intent to Test" notification specified in section f)(2)e.

7. P004, P004 Fermentation Process with Scrubber

Operations, Property and/or Equipment Description:

Fermentation process including 10 fermentation tanks, beerwell, beer degasser and regen eductor from distillation controlled by a CO2 scrubber. Uncontrolled process equipment associated with this emissions unit include two yeast tank vents.

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

(1) b)(1)f., d)(5) through d)(10), e)(2) and e)(3).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)	<u>CO2 Scrubber Emissions:</u> 16.57 lbs volatile organic compounds (VOC)/hr; 72.59 tons VOC per rolling, 12-month period during normal operations 19.89 tons VOC per rolling, 12-month period during scheduled maintenance scrubber bypass events 0.99 ton particulate emissions (PE) per rolling, 12-month period during normal operations 0.34 ton particulate matter less than 10 microns in size (PM10) per rolling, 12-month period during normal operations 0.34 ton particulate matter less than 2.5 microns in size (PM2.5) per rolling, 12-month period during normal operations Visible PE shall not exceed 20% opacity, as a six-minute average

		Two Yeast Tank Vent Emissions: 0.655 ton VOC per rolling, 12-month period, from each yeast tank individually See b)(2)a. and Facility-Wide Term and Condition B.2.
b.	ORC 3704.03(T) OAC rule 3745-31-05(A)(3)	See b)(2)b.
c.	OAC rule 3745-31-05(A)(3)(a)(ii)	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PM10/PM2.5 emissions from this air contaminant source since the potential to emit is less than 10 tons/year taking into account the federally enforceable restriction in c)(1).
d.	OAC rule 3745-17-07(A)	See b)(2)c.
e.	OAC rule 3745-17-11(B)	See b)(2)c.
f.	ORC 3704.03(F) OAC rule 3745-114-01	See d)(5) through d)(10), e)(2) and e)(3).

(2) Additional Terms and Conditions

a. The federally enforceable emission limitations in b)(1)a. are established for the purpose of limiting PTE to avoid PSD and MACT applicability. The federally enforceable emission limitations are based on the operational restrictions contained in c)(1).

b. The BAT requirements for VOC emissions under ORC 3704.03(T) and OAC rule 3745-31-05(A)(3) have been determined to be compliance with the following emission limitation established pursuant to OAC rule 3745-31-05(D):

i. 92.48 tons VOC per rolling, 12-month period during.

Note: The 92.48 tons VOC per rolling, 12-month period emission limitation is the combined total of all VOC emission limitations from the CO2 scrubber and scheduled maintenance bypass events contained in b)(1)a.

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

c) Operational Restrictions

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

a. The CO2 scrubber with a minimum collection efficiency of 98% for VOC and 95% for HAPs shall be used whenever this emissions unit is in normal operation mode.

b. The emissions from scheduled maintenance scrubber bypass events* are limited by the following:

$$\sum_{M=1}^{12}\sum_{n} VOC \leq 19.89\ tons$$

where:

M = the increment of the rolling, 12-month period;

n = type of operation (i.e. hours of bypass, number of active fermenters and amount of production) during the period; and

VOC = calculated emissions of volatile organic compounds in tons.

*Note, all non-scheduled scrubber bypass events shall be reported according to OAC rule 3745-15-06 and emissions from these events are not allowable emissions under the scheduled maintenance scrubber bypass scenario.

Note: The rolling, 12-month restrictions were previously established in PTI P0123848, issued August 14, 2018. Since rolling throughput records exist from this previously issued PTI, it is not necessary to establish federally enforceable restrictions for the first 12 months of operation under the provisions of this permit.

(2) The permittee shall operate the CO2 scrubber when this emissions unit is in operation.

d) Monitoring and/or Recordkeeping Requirements

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

a. The calculated emissions of VOC*, in tons; and

b. The rolling, 12-month summation of the VOC emissions, in tons.

*Emissions of VOC shall be calculated using the emissions data collected during the most recent performance test conducted on this emissions unit, as well as any site-specific information available to the permittee. The monthly emissions shall include any emissions associated with startups, shutdowns, or process upsets, if applicable. The monthly emissions shall not include scrubber bypass events.

(2) For each scheduled maintenance scrubber bypass event the permittee shall maintain records of the following information:

a. The total duration of the scrubber bypass event;

b. The types of operations during the scrubber bypass event;

c. The calculated emissions of VOC*, in tons; and

d. The rolling, 12-month summation of the VOC emissions, in tons.

*Emissions of VOC shall be determined in accordance with the emissions calculations approach presented to Ohio EPA, submitted by the permittee in permit application A0073433 and term and condition c)(1)b. above.

(3) The permittee shall properly install, operate, and maintain equipment to continuously monitor the scrubber liquid flow rate (in gallons per minute) and the bisulfite additive rate (in milliliters per minute), including periods of startup and shutdown. 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.

a. The permittee shall collect and record the following information on a once per shift basis when the emissions unit(s) is in operation:

i. The scrubber liquid flow rate, in gallons per minute;

ii. The bisulfite additive rate, ml/minute; and

iii. A log (date and total time) of the downtime or bypass of the scrubber, and/or downtime of the monitoring equipment, when the associated emissions unit was in operation.

b. Whenever the monitored parameters specified in condition d)(3)a. above deviate from the range(s) or limit(s) established in this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

i. The date and time the deviation began;

ii. The magnitude of the deviation at that time;

iii. The date the investigation was conducted;

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

v. The findings and recommendations.

c. In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range/limit specified in this permit, unless the permittee determines that corrective action is not necessary.

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

(a) The reason corrective action was not necessary; and

(b) The date and time the deviation ended.

ii. The permittee shall maintain records of the following information for each deviation when corrective action was 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 monitored parameter(s) readings immediately after the corrective action was implemented; and

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

iii. 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.

d. In order to demonstrate compliance with the applicable emission limitation(s) contained in this permit, the acceptable ranges and/or limits for the scrubber liquid flow rate and the bisulfite additive rate, which were established through performance testing, that shall be maintained are as follows:

i. The minimum scrubber liquid flow rate, shall be 72 gallons per minute;

ii. The minimum bisulfite additive rate, shall be 140 ml/minute, at 77gpm and above the minimum bisulfite additive is maintained at 130 ml/minute.

e. The range(s) and/or limit(s) for CO2 scrubber are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Ohio EPA NWDO. The permittee may request revisions to the permitted rates based upon information obtained during future performance tests that demonstrate compliance with the allowable emission rates for the controlled pollutants. In addition, approved revisions to the temperature range/limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor Title V permit modification.

(4) The permittee shall maintain records during all periods of time the emissions unit was not vented to the CO2 scrubber.

(5) Modeling to demonstrate compliance with the *Toxic Air Contaminant Statute*, ORC 3704.03(F)(4)(b), was not necessary because the change to the emissions units' maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1 TPY for the project* (not including hexane emissions from natural gas-fired emissions units). OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified PTIO prior to making a *modification* as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1 TPY, may require the permittee to apply for and obtain a new PTIO.

*The project involves increasing the annual undenatured ethanol production from 90 to 120 million gallons per year, including the installation of new equipment (including control equipment) and several facility upgrades to support the increased production. Updated air toxics modeling was not required for J001, P002, P004, P903, and B001-B003. The material

specifications and throughput increases are minimal; therefore, no changes were made that require a new air toxics analysis.

(6) The PTI application (M0008779) for this emissions unit, P004, evaluated based on the actual materials and the design parameters of the emissions units' exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to these emissions units for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as AERSCREEN, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

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

   i. Threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices (2025)"; or

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

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

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

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

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

   Toxic Contaminant: Acetaldehyde

TLV (mg/m3): 33 (From ACGIH's "2025 TLVs and BEIs" Book)

Maximum Hourly Emission Rate (lbs/hr): 1.54 (modeled total)

Predicted 1-Hour Maximum Ground Level Concentration (ug/m3): 16.049

MAGLC (ug/m3): 790.36

Toxic Contaminant: Formaldehyde

Ohio Alternative Health-based Standards (ug/m3): 49 one-hour maximum and 0.8 as an annual average

Maximum Hourly Emission Rate (lbs/hr): 0.011591 (modeled total)

Predicted 1-Hour Maximum Ground Level Concentration (ug/m3): 6.40365

Predicted annual average concentration (ug/m3): 0.41410

Toxic Contaminant: Methanol

TLV (mg/m3): 262 (From ACGIH's "2022 TLVs and BEIs" Book)

Maximum Hourly Emission Rate (lbs/hr): 0.01164 (modeled total)

Predicted 1-Hour Maximum Ground Level Concentration (ug/m3): 0.12136

MAGLC (ug/m3): 6,240.14

The permittee has demonstrated that emissions of acetaldehyde and methanol, from emissions unit P004, is calculated to be less than eighty percent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

The permittee, having demonstrated that emissions of formaldehyde, from emissions unit P004, is estimated to be less than 80 percent of the maximum acceptable limits above based upon "Ohio's alternative health-based standard", shall not operate the emissions unit(s) at a rate that would exceed the short-term allowable emission rate, process weight rate, and/or restricted hours of operations, as allowed in this permit; and any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Ohio's alternative health-based standard" for formaldehyde.

(7) Prior to making any physical changes to or changes in the method of operation of these emissions units, that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration, the permittee shall re-model the change(s) to demonstrate that the MAGLC, for acetaldehyde and methanol, and "Ohio's alternative health-based standard", for formaldehyde, has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:

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

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

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

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

(8) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F) and "Ohio's alternative health-based standard":

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

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

c. The one-hour maximum and annual average for each significant toxic contaminant or worst-case contaminant, calculated in accordance with "Ohio's alternative health-based standard";

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

e. The documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and "Ohio's alternative health-based

standard", and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit or the materials applied.

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

(10) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with "Ohio's alternative health-based standard", through the predicted 1-hour maximum ground-level concentration and annual average. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

e) Reporting Requirements

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

a. All exceedances of the rolling, 12-month operational restriction specified in c)(1)b.;

b. Each period of time (start time and date, and end time and date) when the following parameters were outside of the range(s) or limit(s) specified by the manufacturer and/or outside of the acceptable range(s) or limit(s) following any required compliance demonstration:

i. Liquid flow rate for the CO2 scrubber; and

ii. Bisulfite additive rate;

c. 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 CO2 scrubber;

d. Each incident of deviation described in e)(1)b. or e)(1)c. where a prompt investigation was not conducted;

e. Each incident of deviation described in e)(1)b. or e)(1)c. where prompt corrective action, that would bring the liquid flow rate(s) into compliance with the acceptable range(s) or limit(s), was determined to be necessary and was not taken; and

f. Each incident of deviation described in e)(1)b. or e)(1)c. where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and recordkeeping requirements of this permit.

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

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

a. The original model input.

b. The updated model input.

c. The reason for each change to any input parameter.

d. A summary of the results of the updated modeling, including the input changes.

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

If no changes to the emissions, emissions unit or the exhaust stack(s) have been made during the reporting period, then the report shall include a statement to that effect. This report shall be postmarked or delivered no later than January 31 following the end of each calendar year.

(3) The permittee shall submit annual reports that include any changes to any parameter or value used in the dispersion model used to demonstrate compliance with the "Ohio's alternative health-based standard", through the predicted 1 hour maximum concentration. The report should include:

a. The original model input;

b. The updated model input;

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

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

e. A statement that the model results indicate that the 1-hour maximum ground-level concentration maintains compliance with "Ohio's alternative health-based standard".

If no changes to the emissions, emissions unit(s), or the exhaust stack have been made during the reporting period, then the report shall include a statement to that effect. This report shall be delivered no later than January 31 following the end of each calendar year.

f) Testing Requirements

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

a. The emission testing shall be conducted within 6 months after the emissions unit has been modified.

b. The emission testing shall be conducted to demonstrate compliance with the VOC mass emission limitations from the CO2 scrubber controlling this emissions unit. Emission testing shall also be conducted to demonstrate compliance with the control efficiency limitation for VOCs from the CO2 scrubber controlling this emissions unit. Upon receipt and review of test results for these pollutants, Ohio EPA will determine whether additional emission testing is required during the five-year permit term in accordance with Engineering Guide No. 16.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

For VOC: Methods 1-4 and 18, 25 or 25A, as appropriate, of 40 CFR, Part 60, Appendix A.

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

The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in Methods 18, 25, or 25A, as appropriate, or an alternative test protocol approved by Ohio EPA. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

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

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

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

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 Ohio EPA NWDO within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from Ohio EPA NWDO.

(2) Compliance with the Emissions Limitations and/or Control Requirements specified in section b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitations:

16.57 lbs of VOC/hr, 72.59 tons VOC per rolling, 12-month period during normal operations

Applicable Compliance Method:

Compliance with the hourly mass emission limitation shall be demonstrated by the performance testing required in condition f)(1).

The permittee shall demonstrate compliance with the rolling, 12-month emission limitation in accordance with the record keeping requirements specified in section d)(1) of this permit.

b. Emission Limitation:

19.89 tons VOC per rolling, 12-month period during scheduled maintenance scrubber bypass events

Applicable Compliance Method:

The permittee shall demonstrate compliance with the rolling, 12-month emission limitation in accordance with the record keeping requirements specified in section d)(2) of this permit.

c. Emission Limitation:

0.99 ton PE per rolling, 12-month period during normal operations

Applicable Compliance Method:

The emission limitation was developed by multiplying an engineering estimated emission factor of 16.06* lb PE/million gallons by the maximum rolling, 12-month denatured ethanol production of 123,080,000 gallons, dividing by 2000 lbs/ton.

*16.06 lb PE/million gallon is the summation of the emission factors for PE (4.96 lb/million gallons), PM10 (5.55 lb/million gallons) and PM2.5 (5.55 lb/million gallons)

If required, compliance with the lb PE/million gallons emission factor shall be determined in accordance with Methods 1-5 of 40 CFR, Part 60, Appendix A.

d. Emission Limitation:

0.34 ton PM10 per rolling, 12-month period during normal operations

0.34 ton PM2.5 per rolling, 12-month period during normal operations

Applicable Compliance Method:

The emission limitation was established using the following emission factors:

Multiplying an engineering estimated emission factor of 5.55 lb PM10/million gallons by the maximum rolling, 12-month denatured ethanol throughput of 123,080,000 gallons, dividing by 2000 lbs/ton.

Multiplying an engineering estimated emission factor of 5.55 lb PM2.5/million gallons by the maximum rolling, 12-month denatured ethanol throughput of 123,080,000 gallons, dividing by 2000 lbs/ton.

If required, compliance with the lb PM10 and PM2.5/million gallons emission factor shall be determined in accordance with Methods 1-4 of 40 CFR, Part 60, Appendix A and Methods 201, 201A and 202 of 40 CFR, Part 51, Appendix M.

e. Emission Limitation:

Visible PE shall not exceed 20% opacity, as a six-minute average

Applicable Compliance Method:

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

f. Emission Limitation:

0.655 ton VOC per rolling, 12-month period from each yeast tank individually.

Applicable Compliance Method:

The emission limitation was established by multiplying the maximum annual amount of yeast produced (262 tons) by an engineering estimated emission factor supplied by the permittee (5 lbs/ton), then divided by 2000 lbs/ton.

If required, the permittee shall demonstrate compliance with the rolling, 12-month emission limitation by demonstrating compliance with the lbs VOC/ton emission factor.

g) Miscellaneous Requirements

(1) None.

8. P006, Two Hammermills with Baghouse

Operations, Property and/or Equipment Description:

Hammermilling baghouse #2, with 2 new hammermills

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)	Stack Emissions: 0.005 grain particulate emissions (PE)/ particulate matter less than or equal to 10 microns in size (PM10)/particulate matter less than or equal to 2.5 microns in size (PM2.5)/dry standard cubic foot (dscf); 4.51 tons PE per rolling, 12-month period 1.13 tons PM10/PM2.5 per rolling, 12-month period Visible stack PE shall not exceed 0% opacity, as a six-minute average Fugitive Emissions: 0.36 ton PE per rolling, 12-month period 0.18 ton PM10/PM2.5 per rolling, 12-month period

		Visible fugitive PE shall not exceed 5% opacity, as a three-minute average See b)(2)a.
b.	OAC rule 3745-31-05(A)(3)(a)(ii)	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PM10/PM2.5 emissions from this air contaminant source since the potential to emit is less than 10 tons/year taking into account the federally enforceable restriction in c)(1).
c.	OAC rule 3745-17-07(A)	See b)(2)b.
d.	OAC rule 3745-17-11(B)	See b)(2)b.
e.	OAC rule 3745-17-07(B)	See b)(2)b.
f.	OAC rule 3745-17-08(B)	See b)(2)b.

(2) Additional Terms and Conditions

a. The federally enforceable emission limitations in b)(1)a. are established for the purpose of limiting PTE to avoid PSD and MACT applicability. The federally enforceable emission limitations are based on the operational restrictions contained in c)(1).

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

c) Operational Restrictions

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

a. The use of a baghouse achieving a maximum outlet concentration of 0.005 grain/dscf for PE/PM10/PM2.5; and

b. The maximum throughput rate for this emissions unit shall not exceed 1,200,000 tons grain, based upon a rolling, 12-month summation of the throughput rates.

To ensure federal enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the material throughput rates specified in the following table:

Maximum Allowable Cumulative Material Throughput Rates:

Month(s)	Maximum Allowable Cumulative Throughput (tons)
1 – 6	600,000

1 – 12	1,200,000

After the first 12 months of operation following the issuance of this permit, compliance with the material throughput limitations shall be based upon a rolling, 12-month summation of the monthly material throughput rates.

(2) The permittee shall operate the baghouse when this emissions unit is in operation.

d) Monitoring and/or Recordkeeping Requirements

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

a. The total grain throughput for each month;

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

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

(2) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack and for any visible emissions of fugitive dust 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. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and 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 emissions incident; and

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

If visible emissions are present, a visible emissions incident has occurred. The observer does not have to document the exact start and end times for the visible emissions incident under item d)(2)d. above or continue the weekly check until the incident has ended. The observer may indicate that the visible emissions 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.

(3) The permittee shall maintain records during all periods of time the emissions unit was not vented to the baghouse.

e) Reporting Requirements

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

a. All exceedances of the rolling, 12-month limitation of the material throughput, in tons, for this emissions unit in c)(1);

b. All times when the emissions unit was not vented to the baghouse;

c. All days during which any visible particulate emissions were observed from the stack serving this emissions unit;

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

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

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

f) Testing Requirements

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

a. The emission testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit.

b. The emission testing shall be conducted to demonstrate compliance with the outlet grain loading concentration for PE.

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

For PE, Methods 1-5 of 40 CFR Part 60, Appendix A.

Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA NWDO.

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

e. During the emissions testing, the emissions unit shall be operated under operational conditions approved in advance by Ohio EPA NWDO. Operational conditions that may need to be approved include, but are not limited to, the production rate, the type of material processed, material make-up (solvent content, etc.), or control equipment operational limitations (burner temperature, precipitator voltage, etc.). In general,

testing shall be done under "worst case" conditions expected during the life of the permit. As part of the information provided in the "Intent to Test" notification form described below, the permittee shall provide a description of the emissions unit operational conditions they will meet during the emissions testing and describe why they believe "worst case" operating conditions will be met. Prior to conducting the test(s), the permittee shall confirm with Ohio EPA NWDO that the proposed operating conditions constitute "worst case". Failure to test under the approved conditions may result in Ohio EPA not accepting the test results as a demonstration of compliance.

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

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

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

(2) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

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

0.005 grain PE/PM10/PM2.5/dscf

<u>Applicable Compliance Method:</u>

Compliance with the grain/dscf emission limitation shall be demonstrated by the performance testing required in condition f)(1).

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

4.51 tons PE per rolling, 12-month period (stack)

<u>Applicable Compliance Method:</u>

The rolling, 12-month emission limitation was developed by multiplying the maximum outlet concentration of 0.005 grain/dscf by a maximum volumetric air flow rate of 24,000 acfm by 60 min/hr and applying a conversion factor of 1 lb/7000 grains, then

multiplying by a maximum operating schedule of 8760 hrs/yr, then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the maximum grain outlet concentration, compliance with the rolling, 12-month emission limitation shall also be demonstrated.

c. Emission Limitation:

1.13 tons PM10/PM2.5 per rolling, 12-month period (stack)

Applicable Compliance Method:

The rolling, 12-month emission limitation was based on AP-42 Chapter 9 data that PM10 is assumed to be 25 percent of the total PE. Therefore, provided compliance is shown with the maximum grain outlet concentration, compliance with the rolling, 12-month emission limitation shall also be demonstrated.

d. Emission Limitation:

Visible stack PE shall not exceed 0% opacity, as a six-minute average

Applicable Compliance Method:

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

e. Emission Limitation:

0.36 ton fugitive PE per rolling, 12-month period

Applicable Compliance Method:

The emission limitation was established using the following emission factors:

Multiplying an AP-42 emission factor of 0.012 lb PE/ton from grain hammermilling [Table 9.9.1-1 (3/03)] by a maximum rolling, 12-month grain throughput of 1,200,000 tons grain*, then dividing by 2000 lbs/ton and applying a 95% capture efficiency for the use of total enclosure with aspiration to a baghouse. Therefore, provided compliance is demonstrated with the rolling, 12-month throughput restriction, compliance with the rolling, 12-month emission limitation shall also be demonstrated.

*This limit is established as a maximum rolling, 12-month throughput in emissions unit P901, grain receiving, and; therefore, effectively restricts throughput in this emissions unit as well.

f. Emission Limitation

0.18 ton fugitive PM10/PM2.5 per rolling, 12-month period

Applicable Compliance Method:

The emission limitation was established using the following emission factors:

Multiplying an AP-42 emission factor of 0.006 lb PM10/PM2.5/ton from grain scalping [Table 9.9.1-1 (3/03)] by a maximum rolling, 12-month grain throughput of 1,200,000 tons grain*, then dividing by 2000 lbs/ton and applying a 95% capture efficiency for the use of total enclosure with aspiration to a baghouse. Therefore, provided compliance is demonstrated with the rolling, 12-month throughput restriction, compliance with the rolling, 12-month emission limitation shall also be demonstrated.

*This limit is established as a maximum rolling, 12-month throughput in emissions unit P901, grain receiving, and; therefore, effectively restricts throughput in this emissions unit as well.

g. Emission Limitation:

Visible fugitive PE shall not exceed 5% opacity, as a three-minute average

Applicable Compliance Method:

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

g) Miscellaneous Requirements

(1) None.

9. Emissions Unit Group -Cooling Towers each with a circulation rate of 24,000 gpm

EU ID	Operations, Property and/or Equipment Description
P003	Cooling Tower
P007	Cooling Tower with a circulation rate of 24,000 gpm

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)	<u>From each emissions unit individually:</u> 8.42 tons particulate emissions (PE)/ particulate matter less than or equal to 10 microns in size (PM10)/particulate matter less than or equal to 2.5 microns in size (PM2.5) per rolling, 12-month period Visible PE shall not exceed 20% opacity, as a six-minute average See b)(2)a.
b.	OAC rule 3745-31-05(A)(3)(a)(ii)	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PM10/PM2.5 emissions from this air contaminant source since the potential to emit is less than 10 tons/year taking into account the federally enforceable restriction in c)(1).
d.	OAC rule 3745-17-07(A)	See b)(2)b.
e.	OAC rule 3745-17-11(B)	See b)(2)b.

(2) Additional Terms and Conditions

a. The federally enforceable emission limitations in b)(1)a. were established for the purpose of limiting PTE to avoid PSD and MACT applicability. The federally enforceable emission limitations are based on the operational restrictions contained in c)(1).

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

c) Operational Restrictions

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

a. The use of a high efficiency drift eliminator capable of achieving an outlet drift factor of 0.005%; and

b. The permittee shall not exceed a total dissolved solids (TDS) content of 3,200 ppm in the cooling water for each emissions unit.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall collect and record the following information for each emissions unit each month:

a. The permittee shall test and record the TDS content, in ppm, of the cooling water at least once per month. The TDS content shall be measured using test procedures that conform to regulation 40 CFR, Part 136, "Test Procedures For The Analysis of Pollutants" or an equivalent method approved by Ohio EPA NWDO; and

b. The average TDS content of all samples taken, in ppm, based on a rolling, 12-month average.

e) Reporting Requirements

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

a. Any exceedances of the TDS content restriction of 3,200 ppm.

The quarterly deviation (excursion) reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

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

8.42 tons PE/PM10/PM2.5 per rolling, 12-month period from each emissions unit individually

Applicable Compliance Method:

Compliance with the annual emission limitation is demonstrated based upon the following calculation:

$$Ei = \left(\frac{\text{DRI}}{100}\right)\left(\frac{\text{TDS ppm}}{1{,}000{,}000}\right)\left(\frac{8.34\ \text{lbs}}{gal}\right)\left(\frac{\text{MMgal}}{hour}\right)\left(\frac{8{,}760\ hrs}{\text{year} *}\right)\left(\frac{Ton}{2{,}000\ \text{lbs}}\right)$$

Where:

E_i = total tons of particulate matter per rolling 12-month period, i (i = PE/PM10/PM2.5)

DRi = maximum drift loss of 0.005%

TDS = Maximum TDS content, in ppm (3,200 ppm)

8.34 lbs/gal = density of water

MMgal/hour = maximum hourly cooling water recirculation rate (1,440,000 gal/hour)

8,760 hrs/yr = maximum annual operating schedule in a rolling 12-month period.

*year = rolling 12-month period.

If required, the permittee shall conduct drift measurement testing to determine the drift factor for this cooling tower utilizing the "Isokinetic Drift Measurement Test Code for Water Cooling Towers", ATC-140(94), June, 1994 (or the most recent edition) from the Cooling Technology Institute.

b. Emission Limitation:

Visible PE shall not exceed 20% opacity, as a six-minute average from each emissions unit individually

Applicable Compliance Method:

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

g) Miscellaneous Requirements

(1) None.

10. P901, Grain Receiving

Operations, Property and/or Equipment Description:

Grain Receiving

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)	<u>Stack Emissions:</u> 0.01 grain particulate emissions (PE)/ particulate matter less than or equal to 10 microns in size (PM10)/particulate matter less than or equal to 2.5 microns in size (PM2.5)/dry standard cubic foot (dscf) 17.27 tons PE per rolling, 12-month period for P901 and P902, combined 4.32 tons PM10/PM2.5 per rolling, 12-month period for P901 and P902, combined Visible stack PE shall not exceed 0% opacity, as a six-minute average <u>Fugitive Emissions:</u> 1.05 tons PE per rolling, 12-month period 0.23 ton PM10 per rolling, 12-month period 0.04 ton PM2.5 per rolling, 12-month period Visible fugitive PE shall not exceed 5% opacity, as a three-minute average See b)(2)a.
b.	OAC rule 3745-31-05(A)(3)(a)(ii)	The Best Available Technology (BAT) requirements under OAC rule 3745-31-

		05(A)(3) do not apply to the PM10/PM2.5 emissions from this air contaminant source since the potential to emit is less than 10 tons/year taking into account the federally enforceable restriction in c)(1).
c.	40 CFR, Part 60, Subpart DD	See b)(2)c.
d.	OAC rule 3745-17-07(A)	See b)(2)b.
e.	OAC rule 3745-17-11(B)	See b)(2)b.
f.	OAC rule 3745-17-07(B)	See b)(2)b.
g.	OAC rule 3745-17-08(B)	See b)(2)b.

(2) Additional Terms and Conditions

a. The federally enforceable emission limitations in b)(1)a. were established for the purpose of limiting PTE to avoid PSD and MACT applicability. The federally enforceable emission limitations are based on the operational restrictions contained in c)(1).

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

c. The requirements of this rule do not apply to any fugitive dust source which is located at a grain elevator having a permanent storage capacity of less than 2.5 million bushels.

c) Operational Restrictions

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

a. The use of a baghouse* achieving a maximum outlet concentration of 0.01 grain/dscf for PE/PM10/PM2.5; and

b. The maximum grain throughput for this emissions unit shall not exceed 1,200,000 tons, based upon a rolling, 12-month summation of the throughput rates.

*This baghouse controls emissions units P901 and P902.

(2) The permittee shall operate the baghouse when this emissions unit is in operation.

d) Monitoring and/or Recordkeeping Requirements

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

a. The total grain throughput for each month; and

b. The rolling, 12-month summation of the grain throughput.

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

visible emissions of fugitive dust 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. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. The location and 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 emissions incident; and

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

If visible emissions are present, a visible emissions incident has occurred. The observer does not have to document the exact start and end times for the visible emissions incident under item d)(2)d. above or continue the weekly check until the incident has ended. The observer may indicate that the visible emissions 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.

(3) The permittee shall maintain records during all periods of time the emissions unit was not vented to the baghouse.

e) Reporting Requirements

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

a. All exceedances of the rolling, 12-month limitation of the material throughput, in tons, for this emissions unit in c)(1);

b. All times when the emissions unit was not vented to the baghouse;

c. All days during which any visible particulate emissions were observed from the stack serving this emissions unit;

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

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

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

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

0.01 grain PE/PM10/PM2.5/dscf

Applicable Compliance Method:

Compliance with the allowable grain outlet concentration has been demonstrated by performance testing conducted on June 15, 2011.

If required, compliance with the grain/dscf emission limitation shall be determined in accordance with Methods 1-4 of 40 CFR, Part 60, Appendix A and Methods 201, 201A and 202 of 40 CFR, Part 51, Appendix M.

b. Emission Limitation:

17.27 tons PE per rolling, 12-month period for P901 and P902, combined (stack)

Applicable Compliance Method:

The rolling, 12-month PE limitation was developed by multiplying the maximum outlet concentration of 0.01 grain/dscf by a maximum volumetric air flow rate of 46,000 acfm by 60 min/hr, and applying a conversion factor of 1 lb/7000 grains, then multiplying by a maximum operating schedule of 8760 hrs/yr, then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the maximum grain outlet concentration, compliance with the rolling, 12-month emission limitation shall also be demonstrated.

c. Emission Limitation:

4.32 tons PM10/PM2.5 per rolling, 12-month period for P901 and P902, combined (stack)

Applicable Compliance Method:

The rolling, 12-month PM10/PM2.5 limitation was based on AP-42 Chapter 9 data that PM10 is assumed to be 25 percent of the total PE. Therefore, provided compliance is shown with the maximum grain outlet concentration, compliance with the rolling, 12-month emission limitation shall also be demonstrated.

d. Emission Limitation:

Visible stack PE shall not exceed 0% opacity, as a six-minute average

Applicable Compliance Method:

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

e. Emission Limitation:

1.05 tons fugitive PE per rolling, 12-month period

Applicable Compliance Method:

The emission limitation was established using the following emission factors:

Multiplying an AP-42 emission factor of 0.035 lb PE/ton from grain receiving (hopper truck) [Table 9.9.1-1 (3/03)] by a maximum rolling, 12-month grain throughput of 1,200,000 tons grain, then dividing by 2000 lbs/ton and applying a 95% capture efficiency for the use of total enclosure with aspiration to a baghouse.

Therefore, provided compliance is demonstrated with the rolling, 12-month throughput restriction, compliance with the rolling, 12-month emission limitation shall also be demonstrated.

f. Emission Limitation:

0.23 ton fugitive PM10 per rolling, 12-month period

Applicable Compliance Method:

The emission limitation was established using the following emission factors:

Multiplying an AP-42 emission factor of 0.0078 lb PM10/ton from grain receiving (hopper truck) [Table 9.9.1-1 (3/03)] by a maximum rolling, 12-month grain throughput of 1,200,000 tons grain, then dividing by 2000 lbs/ton and applying a 95% capture efficiency for the use of total enclosure with aspiration to a baghouse.

Therefore, provided compliance is demonstrated with the rolling, 12-month throughput restriction, compliance with the rolling, 12-month emission limitation shall also be demonstrated.

g. Emission Limitation:

0.04 ton fugitive PM2.5 per rolling, 12-month period

Applicable Compliance Method:

The emission limitation was established using the following emission factors:

Multiplying an AP-42 emission factor of 0.0013 lb PM2.5/ton from grain receiving (hopper truck) [Table 9.9.1-1 (3/03)] by a maximum rolling, 12-month grain throughput of 1,200,000 tons grain, then dividing by 2000 lbs/ton and applying a 95% capture efficiency for the use of total enclosure with aspiration to a baghouse.

Therefore, provided compliance is demonstrated with the rolling, 12-month throughput restriction, compliance with the rolling, 12-month emission limitation shall also be demonstrated.

h. Emission Limitation:

Visible fugitive PE shall not exceed 5% opacity, as a three-minute average

Applicable Compliance Method:

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

g) Miscellaneous Requirements

(1) None.

11. P902, Grain Handling and Storage

Operations, Property and/or Equipment Description:

Grain Handling and Storage (including two scalpers and three silos)

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)	<u>Stack Emissions:</u> 0.01 grain particulate emissions (PE)/ particulate matter less than or equal to 10 microns in size (PM10)/particulate matter less than or equal to 2.5 microns in size (PM2.5)/dry standard cubic foot (dscf) 17.27 tons PE per rolling, 12-month period for P901 and P902, combined 4.32 tons PM10/PM2.5 per rolling, 12-month period for P901 and P902, combined Visible stack PE shall not exceed 0% opacity, as a six-minute average <u>Fugitive Emissions:</u> 1.83 tons PE per rolling, 12-month period 1.02 tons PM10 per rolling, 12-month period 0.17 ton PM2.5 per rolling, 12-month period Visible fugitive PE shall not exceed 5% opacity, as a three-minute average See b)(2)a.
b.	OAC rule 3745-31-05(A)(3)(a)(ii)	The Best Available Technology (BAT) requirements under OAC rule 3745-31-

		05(A)(3) do not apply to the PM10/PM2.5 emissions from this air contaminant source since the potential to emit is less than 10 tons/year taking into account the federally enforceable restriction in c)(1).
c.	40 CFR, Part 60, Subpart DD	See b)(2)c.
d.	OAC rule 3745-17-07(A)	See b)(2)b.
e.	OAC rule 3745-17-11(B)	See b)(2)b.
f.	OAC rule 3745-17-07(B)	See b)(2)b.

(2) Additional Terms and Conditions

a. The federally enforceable emission limitations in b)(1)a. were established for the purpose of limiting PTE to avoid PSD and MACT applicability. The federally enforceable emission limitations are based on the operational restrictions contained in c)(1).

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

c. The requirements of this rule do not apply to any fugitive dust source which is located at a grain elevator having a permanent storage capacity of less than 2.5 million bushels.

c) Operational Restrictions

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

a. The use of a baghouse* achieving a maximum outlet concentration of 0.01 grain/dscf for PE/PM10/PM2.5; and

b. The maximum grain throughput for this emissions unit shall not exceed 1,200,000 tons, based upon a rolling, 12-month summation of the throughput rates.

*This baghouse controls emissions units P901 and P902.

(2) The permittee shall operate the baghouse when this emissions unit is in operation.

d) Monitoring and/or Recordkeeping Requirements

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

a. The total grain throughput for each month; and

b. The rolling, 12-month summation of the grain throughput.

(2) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack and for any visible emissions of fugitive dust 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. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. The location and 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 emissions incident; and

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

If visible emissions are present, a visible emissions incident has occurred. The observer does not have to document the exact start and end times for the visible emissions incident under item d)(2)d. above or continue the weekly check until the incident has ended. The observer may indicate that the visible emissions 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.

(3) The permittee shall maintain records during all periods of time the emissions unit was not vented to the baghouse.

e) Reporting Requirements

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

a. All exceedances of the rolling, 12-month limitation of the material throughput, in tons, for this emissions unit in c)(1);

b. All times when the emissions unit was not vented to the baghouse;

c. All days during which any visible particulate emissions were observed from the stack serving this emissions unit;

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

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

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

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

0.01 grain PE/PM10/PM2.5/dscf

Applicable Compliance Method:

Compliance with the allowable grain outlet concentration has been demonstrated by performance testing conducted on June 15, 2011.

If required, compliance with the grain/dscf emission limitation shall be determined in accordance with Methods 1-4 of 40 CFR, Part 60, Appendix A and Methods 201, 201A and 202 of 40 CFR, Part 51, Appendix M.

b. Emission Limitation:

17.27 tons PE per rolling, 12-month period for P901 and P902, combined (stack)

Applicable Compliance Method:

The rolling, 12-month emission limitation was developed by multiplying the maximum outlet concentration of 0.01 grain/dscf by a maximum volumetric air flow rate of 46,000 acfm by 60 min/hr, and applying a conversion factor of 1 lb/7000 grains, then multiplying by a maximum operating schedule of 8760 hrs/yr, then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the maximum grain outlet concentration, compliance with the rolling, 12-month emission limitation shall also be demonstrated.

c. Emission Limitation:

4.32 tons PM10/PM2.5 per rolling, 12-month period for P901 and P902, combined (stack)

Applicable Compliance Method:

The rolling, 12-month PM10/PM2.5 limitation was based on AP-42 Chapter 9 data that PM10 is assumed to be 25 percent of the total PE. Therefore, provided compliance is shown with the maximum grain outlet concentration, compliance with the rolling, 12-month emission limitation shall also be demonstrated.

d. Emission Limitation:

Visible stack PE shall not exceed 0% opacity, as a six-minute average

Applicable Compliance Method:

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

e. Emission Limitation:

1.83 tons fugitive PE per rolling, 12-month period

Applicable Compliance Method:

The emission limitation was established using the following emission factors:

Multiplying an AP-42 emission factor of 0.061 lb PE/ton from grain handling [Table 9.9.1-1 (3/03)] by a maximum rolling, 12-month grain throughput of 1,200,000 tons grain, then dividing by 2000 lbs/ton and applying a 95% capture efficiency for the use of total enclosure with aspiration to a baghouse.

Therefore, provided compliance is demonstrated with the rolling, 12-month throughput restriction, compliance with the rolling, 12-month emission limitation shall also be demonstrated.

f. Emission Limitation:

1.02 tons fugitive PM10 per rolling, 12-month period

Applicable Compliance Method:

The emission limitation was established using the following emission factors:

Multiplying an AP-42 emission factor of 0.034 lb PM10/ton from grain handling [Table 9.9.1-1 (3/03)] by a maximum rolling, 12-month grain throughput of 1,200,000 tons grain, then dividing by 2000 lbs/ton and applying a 95% capture efficiency for the use of total enclosure with aspiration to a baghouse.

Therefore, provided compliance is demonstrated with the rolling, 12-month throughput restriction, compliance with the rolling, 12-month emission limitation shall also be demonstrated.

g. Emission Limitation:

0.17 ton fugitive PM2.5 per rolling, 12-month period

Applicable Compliance Method:

The emission limitation was established using the following emission factors:

Multiplying an AP-42 emission factor of 0.0058 lb PM2.5/ton from grain handling [Table 9.9.1-1 (3/03)] by a maximum rolling, 12-month grain throughput of 1,200,000 tons grain, then dividing by 2000 lbs/ton and applying a 95% capture efficiency for the use of total enclosure with aspiration to a baghouse.

Therefore, provided compliance is demonstrated with the rolling, 12-month throughput restriction, compliance with the rolling, 12-month emission limitation shall also be demonstrated.

h. Emission Limitation:

Visible fugitive PE shall not exceed 5% opacity, as a three-minute average

Applicable Compliance Method:

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

g) Miscellaneous Requirements

(1) None.

12. P903, DDGS Cooling

Operations, Property and/or Equipment Description:

Dried Distillers Grains Handling and Cooling

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

(1) b)(1)h., d)(4) through d)(9), e)(2) and e)(3).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)	<u>Stack Emissions:</u> 0.005 grain particulate emissions (PE)/ particulate matter less than or equal to 10 microns in size (PM10)/particulate matter less than or equal to 2.5 microns in size (PM2.5)/dry standard cubic foot (dscf) 1.23 tons PE per rolling, 12-month period 0.31 ton PM10/PM2.5 per rolling, 12-month period Visible stack PE shall not exceed 0% opacity, as a six-minute average 20.00 lbs volatile organic compounds (VOC)/hr; 87.60 tons VOC per rolling, 12-month period <u>Fugitive Emissions:</u> 2.22 tons PE per rolling, 12-month period 0.55 ton PM10 per rolling, 12-month period 0.09 ton PM2.5 per rolling, 12-month period

		Visible fugitive PE shall not exceed 5% opacity, as a three-minute average See b)(2)a. and Facility-Wide Terms and Conditions B.2.
b.	ORC 3704.03(T) OAC rule 3745-31-05(A)(3)	See b)(2)b.
c.	OAC rule 3745-31-05(A)(3)(a)(ii)	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PM10/PM2.5 emissions from this air contaminant source since the potential to emit is less than 10 tons/year taking into account the federally enforceable restriction in c)(1).
d.	OAC rule 3745-17-07(A)	See b)(2)c.
e.	OAC rule 3745-17-11(B)	See b)(2)c.
f.	OAC rule 3745-17-07(B)	See b)(2)c.
g.	OAC rule 3745-17-08(B)	See b)(2)c.
h.	OAC rule 3745-114-01	See d)(4) through d)(9), e)(2) and e)(3).

(2) Additional Terms and Conditions

a. The federally enforceable emission limitations in b)(1)a. were established for the purpose of limiting PTE to avoid PSD and MACT applicability. The federally enforceable emission limitations are based on the operational restrictions contained in c)(1).

b. The BAT requirements for VOC emissions under ORC 3704.03(T) and OAC 3745-31-05(A)(3) have been determined to be compliance with the following emission limitation established pursuant to OAC rule 3745-31-05(D):

i. 87.60 tons VOC per rolling, 12-month period (stack).

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

c) Operational Restrictions

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

a. The use of a baghouse achieving a maximum outlet concentration of 0.005 grain/dscf for PE/PM10/PM2.5; and

b. The maximum throughput rate for this emissions unit shall not exceed 402,857 tons DDGS, based upon a rolling, 12-month summation of the throughput rates.

(2) The permittee shall operate the baghouse when this emissions unit is in operation.

d) Monitoring and/or Recordkeeping Requirements

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

a. The DDGS throughput, in tons per month and per rolling, 12-month period;

b. The calculated emissions of VOC*, in tons; and

c. The rolling, 12-month emissions of VOC, in tons.

*Emissions of VOC shall be calculated using the emissions data collected during the most recent performance test conducted on this emissions unit. The monthly emissions shall include any emissions associated with startups or process upsets, if applicable.

(2) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack and for any visible emissions of fugitive dust 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. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. The location and 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 emissions incident; and

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

If visible emissions are present, a visible emissions incident has occurred. The observer does not have to document the exact start and end times for the visible emissions incident under item d)(2)d. above or continue the weekly check until the incident has ended. The observer may indicate that the visible emissions 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.

(3) The permittee shall maintain records during all periods of time the emissions unit was not vented to the baghouse.

(4) Modeling to demonstrate compliance with the *Toxic Air Contaminant Statute*, ORC 3704.03(F)(4)(b), was not necessary because the change to the emissions units' maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less

than 1 TPY for the project* (not including hexane emissions from natural gas-fired emissions units). OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified PTIO prior to making a *modification* as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1 TPY, may require the permittee to apply for and obtain a new PTIO.

*The project involves increasing the annual undenatured ethanol production from 90 to 120 million gallons per year, including the installation of new equipment (including control equipment) and several facility upgrades to support the increased production. Updated air toxics modeling was not required for J001, P002, P004, P903, and B001-B003. The material specifications and throughput increases are minimal; therefore, no changes were made that require a new air toxics analysis.

(5) The PTI application (A0060554) for these emissions units, J001, P002, P004, P903 and B001-B003, were evaluated based on the actual materials and the design parameters of the emissions units' exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to these emissions units for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

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

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

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

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

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

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

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

Toxic Contaminant: Acetaldehyde

TLV (mg/m3): 33 (From ACGIH's "2019 TLVs and BEIs" Book)

Maximum Hourly Emission Rate (lbs/hr): 2.18 (modeled total)

Predicted 1-Hour Maximum Ground Level Concentration (ug/m3): 104.42

MAGLC (ug/m3): 785.71

Toxic Contaminant: Formaldehyde

Ohio Alternative Health-based Standards (ug/m3): 49 one-hour maximum and 0.8 as an annual average

Maximum Hourly Emission Rate (lbs/hr): 1.000845 (modeled total)

Predicted 1-Hour Maximum Ground Level Concentration (ug/m3): 7.935

Predicted annual average concentration (ug/m3): 0.604

Toxic Contaminant: Methanol

TLV (mg/m3): 262 (From ACGIH's "2019 TLVs and BEIs" Book)

Maximum Hourly Emission Rate (lbs/hr): 0.70003 (modeled total)

Predicted 1-Hour Maximum Ground Level Concentration (ug/m3): 42.345

MAGLC (ug/m3): 6,240

The permittee, has demonstrated that emissions of acetaldehyde and methanol, from emissions units J001, P002, P004, P903 and B001-B003, is calculated to be less than eighty percent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

The permittee, having demonstrated that emissions of formaldehyde, from emissions units J001, P002, P004, P903 and B001-B003, is estimated to be less than 80 percent of the maximum acceptable limits above based upon "Ohio's alternative health-based standard", shall not operate the emissions unit(s) at a rate that would exceed the short-term allowable emission

rate, process weight rate, and/or restricted hours of operations, as allowed in this permit; and any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Ohio's alternative health-based standard" for formaldehyde.

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

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

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

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

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

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

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

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

c. The one-hour maximum and annual average for each significant toxic contaminant or worst-case contaminant, calculated in accordance with "Ohio's alternative health-based standard";

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

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

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

(9) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with "Ohio's alternative health-based standard", through the predicted 1-hour maximum ground-level concentration and annual average. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

e) Reporting Requirements

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

a. All exceedances of the rolling, 12-month limitation of the material throughput, in tons, for this emissions unit in c)(1);

b. All times when the emissions unit was not vented to the baghouse;

c. All days during which any visible particulate emissions were observed from the stack serving this emissions unit;

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

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

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

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

a. The original model input;

b. The updated model input;

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

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

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

If no changes to the emissions, emissions unit, or the exhaust stack have been made during the reporting period, then the report shall include a statement to that effect. This report shall be delivered no later than January 31 following the end of each calendar year.

(3) The permittee shall submit annual reports that include any changes to any parameter or value used in the dispersion model used to demonstrate compliance with the "Ohio's alternative health-based standard", through the predicted 1 hour maximum concentration. The report should include:

a. The original model input;

b. The updated model input;

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

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

e. A statement that the model results indicate that the 1-hour maximum ground-level concentration maintains compliance with "Ohio's alternative health-based standard".

If no changes to the emissions, emissions unit(s), or the exhaust stack have been made during the reporting period, then the report shall include a statement to that effect. This report shall be delivered no later than January 31 following the end of each calendar year.

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

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

0.005 grain PE/PM10/PM2.5/dscf

1.23 tons PE per rolling, 12-month period (stack)

0.31 ton PM10/PM2.5 per rolling, 12-month period (stack)

Applicable Compliance Method:

Compliance with the gr/dscf emission limitations shall be demonstrated in accordance with the performance testing required in section f)(2).

The rolling, 12-month PE limitation was developed by multiplying the maximum outlet concentration of 0.005 grain/dscf by a maximum volumetric air flow rate of 6,550 acfm by 60 min/hr, and applying a conversion factor of 1 lb/7000 grains, then multiplying by a maximum operating schedule of 8760 hrs/yr, then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the maximum grain outlet concentration, compliance with the rolling, 12-month emission limitation shall also be demonstrated.

The rolling, 12-month PM10/PM2.5 limitation was based on AP-42 Chapter 9 data that PM10 is assumed to be 25 percent of the total PE. Therefore, provided compliance is shown with the maximum grain outlet concentration, compliance with the rolling, 12-month emission limitation shall also be demonstrated.

b. Emission Limitation:

20.00 lbs VOC/hr; 87.60 tons VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance with the lb/hr emission limitations shall be demonstrated in accordance with the performance testing required in section f)(2).

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

c. Emission Limitation:

Visible stack PE shall not exceed 0% opacity, as a six-minute average

Applicable Compliance Method:

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

d. Emission Limitation:

2.22 tons fugitive PE per rolling, 12-month period

Applicable Compliance Method:

The emission limitation was established using the following emission factors:

Multiplying an AP-42 emission factor of 0.22 lb PE/ton of DDGS cooling product [Table 9.9.1-2 (3/03)] by a maximum DDGS throughput of 402,857 *, then dividing by 2000 lbs/ton and applying a 95% capture efficiency for the use of total enclosure with

aspiration to a baghouse. Therefore, provided compliance is demonstrated with the rolling, 12-month throughput restriction, compliance with the rolling, 12-month emission limitation shall also be demonstrated.

*The rolling, 12-month DDGS throughput of 402,857 tons has been calculated to be the maximum amount of DDGS that can be generated from this facility (which has a rolling, 12-month throughput restriction of 123,076,923 gallons of denatured ethanol, see emissions unit J001) and; therefore, effectively restricts throughput in this emissions unit as well.

e. Emission Limitation:

0.55 ton fugitive PM10 per rolling, 12-month period

Applicable Compliance Method:

The emission limitation was established using the following emission factor:

Multiplying an AP-42 emission factor of 0.055 lb PM10/ton from DDGS cooling product [Table 9.9.1-1 (3/03)] by a maximum rolling, 12-month DDGS throughput of 402,857 tons*, then dividing by 2000 lbs/ton and applying a 95% capture efficiency for the use of total enclosure with aspiration to a baghouse. Therefore, provided compliance is demonstrated with the rolling, 12-month throughput restriction, compliance with the rolling, 12-month emission limitation shall also be demonstrated.

*The rolling, 12-month DDGS throughput of 402,857 tons has been calculated to be the maximum amount of DDGS that can be generated from this facility (which has an rolling, 12-month throughput restriction of 123,076,923 gallons of denatured ethanol, see emissions unit J001) and; therefore, effectively restricts throughput in this emissions unit as well.

f. Emission Limitation:

0.09 ton fugitive PM2.5 per rolling, 12-month period

Applicable Compliance Method:

The emission limitation was established using the following emission factors:

Multiplying an AP-42 emission factor of 0.0094 lb PM2.5/ton from DDGS cooling product [Table 9.9.1-1 (3/03)] by a maximum rolling, 12-month DDGS throughput of 402,857 tons*, then dividing by 2000 lbs/ton and applying a 95% capture efficiency for the use of total enclosure with aspiration to a baghouse. Therefore, provided compliance is demonstrated with the rolling, 12-month throughput restriction, compliance with the rolling, 12-month emission limitation shall also be demonstrated.

*The rolling, 12-month DDGS throughput of 402,857 tons has been calculated to be the maximum amount of DDGS that can be generated from this facility (which has a rolling, 12-month throughput restriction of 123,076,923 gallons of denatured ethanol, see emissions unit J001) and; therefore, effectively restricts throughput in this emissions unit as well.

g. Emission Limitation:

Visible fugitive PE shall not exceed 5% opacity, as a three-minute average

Applicable Compliance Method:

If required, compliance with the visible fugitive emission limitation shall be determined in accordance with Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60, ("Standards of Performance for New Stationary Sources") and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(d) of OAC rule 3745-17-03.

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

a. The emissions testing shall be conducted within 6 months the emissions unit has been modified .

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for VOC and PE and PM10/PM2.5, in the appropriate averaging periods.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

For VOC: Methods 1-4 and 18, 25 or 25A, as appropriate of 40 CFR, Part 60, Appendix A; and

For PE: Methods 1-5 of 40 CFR, Part 60, Appendix A; and

For PM10/PM2.5: Methods 1-4 of 40 CFR, Part 60, Appendix A and Methods 201, 201A and 202 of 40 CFR, Part 51, Appendix M.

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

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

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

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

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

g) Miscellaneous Requirements

(1) None.

13. P904, DDGS Handling and Storage

Operations, Property and/or Equipment Description:

DDGS Handling and Storage

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)	<u>Stack Emissions:</u> 0.01 grain particulate emissions (PE)/ particulate matter less than or equal to 10 microns in size (PM10)/particulate matter less than or equal to 2.5 microns in size (PM2.5)/dry standard cubic foot (dscf) 1.16 tons PE per rolling, 12-month period 0.29 ton PM10/PM2.5 per rolling, 12-month period Visible stack PE shall not exceed 0% opacity, as a six-minute average <u>Fugitive Emissions:</u> 0.03 ton PE per rolling, 12-month period 0.01 ton PM10/PM2.5 per rolling, 12-month period Visible fugitive PE shall not exceed 5% opacity, as a three-minute average See b)(2)a.
b.	OAC rule 3745-31-05(A)(3)(a)(ii)	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PM10/PM2.5

		emissions from this air contaminant source since the potential to emit is less than 10 tons/year taking into account the federally enforceable restriction in c)(1).
c.	OAC rule 3745-17-07(A)	See b)(2)b.
d.	OAC rule 3745-17-11(B)	See b)(2)b.
e.	OAC rule 3745-17-07(B)	See b)(2)b.
f.	OAC rule 3745-17-08(B)	See b)(2)b.

(2) Additional Terms and Conditions

a. The federally enforceable emission limitations in b)(1)a. were established for the purpose of limiting PTE to avoid PSD and MACT applicability. The federally enforceable emission limitations are based on the operational restrictions contained in c)(1).

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

c) Operational Restrictions

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

a. The use of a baghouse achieving a maximum outlet concentration of 0.01 grain/dscf for PE/PM10/PM2.5; and

b. The maximum throughput rate for this emissions unit shall not exceed 402,857 tons DDGS, based upon a rolling, 12-month summation of the throughput rates.

(2) The permittee shall operate the baghouse when this emissions unit is in operation.

d) Monitoring and/or Recordkeeping Requirements

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

a. The DDGS throughput, in tons per month; and

b. the rolling, 12-month summation of the throughput rates.

(2) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack and for any visible emissions of fugitive dust 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. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. The location and 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 emissions incident; and

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

If visible emissions are present, a visible emissions incident has occurred. The observer does not have to document the exact start and end times for the visible emissions incident under item d)(2)d. above or continue the weekly check until the incident has ended. The observer may indicate that the visible emissions 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.

(3) The permittee shall maintain records during all periods of time the emissions unit was not vented to the baghouse.

e) Reporting Requirements

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

a. All exceedances of the rolling, 12-month limitation of the material throughput, in tons, for this emissions unit in c)(1)b.;

b. All times when the emissions unit was not vented to the baghouse;

c. All days during which any visible particulate emissions were observed from the stack serving this emissions unit;

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

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

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

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

0.01 grain PE/PM10/PM2.5/dscf

1.16 tons PE per rolling,12-month period (stack)

0.29 ton PM10/PM2.5 per rolling, 12-month period (stack)

Applicable Compliance Method:

The maximum grain outlet concentration was determined based on manufacturer guarantee.

If required, compliance with the grain/dscf emission limitation shall be determined in accordance with Methods 1-4 of 40 CFR, Part 60, Appendix A and Methods 201, 201A and 202 of 40 CFR, Part 51, Appendix M.

The rolling, 12-month PE limitation was developed by multiplying the maximum outlet concentration of 0.01 grain/dscf by a maximum volumetric air flow rate of 3,100 acfm by 60 min/hr, and applying a conversion factor of 1 lb/7000 grains, then multiplying by a maximum operating schedule of 8760 hrs/yr, then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the maximum grain outlet concentration, compliance with the rolling, 12-month emission limitation shall also be demonstrated.

The rolling, 12-month emission limitation was based on AP-42 Chapter 9 data that PM10 is assumed to be 25 percent of the total PE. Therefore, provided compliance is shown with the maximum grain outlet concentration, compliance with the rolling, 12-month emission limitation shall also be demonstrated.

b. Emission Limitation:

Visible stack PE shall not exceed 0% opacity, as a six-minute average

Applicable Compliance Method:

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

c. Emission Limitation:

0.03 ton fugitive PE per rolling, 12-month period

Applicable Compliance Method:

The emission limitation was established using the following emission factors:

Multiplying an AP-42 emission factor of 0.0033 lb PE/ton from DDGS handling [Table 9.9.1-2 (3/03)] by a maximum DDGS throughput of 402,857 tons *, then dividing by 2000 lbs/ton and applying a 95% capture efficiency for the use of total enclosure with aspiration to a baghouse. Therefore, provided compliance is demonstrated with the rolling, 12-month throughput restriction, compliance with the rolling, 12-month emission limitation shall also be demonstrated.

*The DDGS throughput of 402,857 tons has been calculated to be the maximum amount of DDGS that can be generated from this facility (which has a rolling, 12-month throughput restriction of 123,076,923 gallons of denatured ethanol, see emissions unit J001) and; therefore, effectively restricts throughput in this emissions unit as well.

d. Emission Limitation:

0.01 ton fugitive PM10/PM2.5 per rolling, 12-month period

Applicable Compliance Method:

The emission limitation was established using the following emission factors:

Multiplying an AP-42 emission factor of 0.0008 lb PM10/ton from DDGS handling [Table 9.9.1-1 (3/03)] by a maximum DDGS throughput of 402,857 tons*, then dividing by 2000 lbs/ton and applying a 95% capture efficiency for the use of total enclosure with aspiration to a baghouse.

Multiplying an AP-42 emission factor of 0.0008 lb PM2.5/ton from DDGS handling [Table 9.9.1-1 (3/03)] by a maximum DDGS throughput of 402,857 tons*, then dividing by 2000 lbs/ton and applying a 95% capture efficiency for the use of total enclosure with aspiration to a baghouse.

*The rolling, 12-month DDGS throughput of 402,857 tons has been calculated to be the maximum amount of DDGS that can be generated from this facility (which has a rolling, 12-month throughput restriction of 123,076,923 gallons of denatured ethanol, see emissions unit J001) and; therefore, effectively restricts throughput in this emissions unit as well.

Therefore, provided compliance is demonstrated with the rolling, 12-month throughput restriction, compliance with the rolling, 12-month emission limitation shall also be demonstrated.

e. Emission Limitation:

Visible fugitive PE shall not exceed 5% opacity, as a three-minute average

Applicable Compliance Method:

If required, compliance with the visible fugitive emission limitation shall be determined in accordance with Method 9 as set forth in “Appendix on Test Methods” in 40 CFR, Part 60, (“Standards of Performance for New Stationary Sources”) and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(d) of OAC rule 3745-17-03.

g) Miscellaneous Requirements

(1) None.

14. P905, DDGS Loadout

Operations, Property and/or Equipment Description:

DDGS Loadout

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)	<u>Stack Emissions:</u> 0.005 grain particulate emissions (PE)/ particulate matter less than or equal to 10 microns in size (PM10)/particulate matter less than or equal to 2.5 microns in size (PM2.5)/dry standard cubic foot (dscf) 0.52 tons PE per rolling, 12-month period 0.13 ton PM10/PM2.5 per rolling, 12-month period Visible stack PE shall not exceed 0% opacity, as a six-minute average <u>Fugitive Emissions:</u> 0.03 ton PE per rolling, 12-month period 0.01 ton PM10/PM2.5 per rolling, 12-month period Visible fugitive PE shall not exceed 5% opacity, as a three-minute average See b)(2)a.
b.	OAC rule 3745-31-05(A)(3)(a)(ii)	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PM10/PM2.5

		emissions from this air contaminant source since the potential to emit is less than 10 tons/year taking into account the federally enforceable restriction in c)(1).
c.	OAC rule 3745-17-07(A)	See b)(2)b.
d.	OAC rule 3745-17-11(B)	See b)(2)b.
e.	OAC rule 3745-17-07(B)	See b)(2)b.
f.	OAC rule 3745-17-08(B)	See b)(2)b.

(2) Additional Terms and Conditions

a. The federally enforceable emission limitations in b)(1)a. were established for the purpose of limiting PTE to avoid PSD and MACT applicability. The federally enforceable emission limitations are based on the operational restrictions contained in c)(1).

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

c) Operational Restrictions

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

a. The use of a baghouse achieving a maximum outlet concentration of 0.005 grain/dscf for PE/PM10/PM2.5.

(2) The permittee shall operate the baghouse when this emissions unit is in operation.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack and for any visible emissions of fugitive dust 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. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. The location and 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 emissions incident; and

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

If visible emissions are present, a visible emissions incident has occurred. The observer does not have to document the exact start and end times for the visible emissions incident under item d)(1)d. above or continue the weekly check until the incident has ended. The observer may indicate that the visible emissions 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.

(2) The permittee shall maintain records during all periods of time the emissions unit was not vented to the baghouse.

e) Reporting Requirements

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

a. All times when the emissions unit was not vented to the baghouse;

b. All days during which any visible particulate emissions were observed from the stack serving this emissions unit;

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

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

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

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

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

0.005 grain PE/PM10/PM2.5/dscf

<u>Applicable Compliance Method:</u>

Compliance with the allowable grain outlet concentration has been demonstrated by performance testing conducted on June 15, 2011.

If required, compliance with the grain/dscf emission limitation shall be determined in accordance with Methods 1-4 of 40 CFR, Part 60, Appendix A and Methods 201, 201A and 202 of 40 CFR, Part 51, Appendix M.

b. Emission Limitation:

0.52 tons PE per rolling, 12-month period (stack)

Applicable Compliance Method:

The rolling, 12-month emission limitation was developed by multiplying the maximum outlet concentration of 0.005 grain/dscf by a maximum volumetric air flow rate of 2,750 acfm by 60 min/hr, and applying a conversion factor of 1 lb/7000 grains, then multiplying by a maximum operating schedule of 8760 hrs/yr, then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the maximum grain outlet concentration, compliance with rolling, 12-month emission limitation shall also be demonstrated.

c. Emission Limitation:

0.13 ton PM10/PM2.5 per rolling, 12-month period (stack)

Applicable Compliance Method:

The rolling, 12-month emission limitation was based on AP-42 Chapter 9 data that PM10 is assumed to be 25 percent of the total PE. Therefore, provided compliance is shown with the maximum grain outlet concentration, compliance with the rolling, 12-month emission limitation shall also be demonstrated.

d. Emission Limitation:

Visible stack PE shall not exceed 0% opacity, as a six-minute average

Applicable Compliance Method:

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

e. Emission Limitation:

0.03 ton fugitive PE per rolling, 12-month period

Applicable Compliance Method:

The emission limitation was established using the following emission factors:

Multiplying an AP-42 emission factor of 0.0033 lb PE/ton from DDGS handling [Table 9.9.1-1 (3/03)] by a maximum DDGS throughput of 402,857 tons*, then dividing by 2000 lbs/ton and applying a 95% capture efficiency for the use of total enclosure with aspiration to a baghouse. Therefore, provided compliance is demonstrated with the rolling, 12-month throughput restriction, compliance with the rolling, 12-month emission limitation shall also be demonstrated.

*The DDGS throughput of 402,857 tons has been calculated to be the maximum amount of DDGS that can be generated from this facility (which has a rolling, 12-month

throughput restriction of 123,076,923 gallons of denatured ethanol, see emissions unit J001) and; therefore, effectively restricts throughput in this emissions unit as well.

f. Emission Limitation:

0.01 ton fugitive PM10/PM2.5 per rolling, 12-month period

Applicable Compliance Method:

The emission limitation was established using the following emission factors:

Multiplying an AP-42 emission factor of 0.0008 lb PM10/ton from DDGS handling [Table 9.9.1-2 (3/03)] by a maximum rolling, 12-month DDGS throughput of 402,857 tons*, then dividing by 2000 lbs/ton and applying a 95% capture efficiency for the use of total enclosure with aspiration to a baghouse.

Multiplying an AP-42 emission factor of 0.0008 lb PM2.5/ton from DDGS handling [Table 9.9.1-2 (3/03)] by a maximum rolling, 12-month DDGS throughput of 402,857 tons*, then dividing by 2000 lbs/ton and applying a 95% capture efficiency for the use of total enclosure with aspiration to a baghouse.

*The DDGS throughput of 402,857 tons has been calculated to be the maximum amount of DDGS that can be generated from this facility (which has a rolling, 12-month throughput restriction of 123,076,923 gallons of denatured ethanol, see emissions unit J001) and; therefore, effectively restricts throughput in this emissions unit as well.

Therefore provided compliance is demonstrated with the rolling, 12-month throughput restriction, compliance with the rolling, 12-month emission limitation shall also be demonstrated.

g. Emission Limitation:

Visible fugitive PE shall not exceed 5% opacity, as a three-minute average

Applicable Compliance Method:

If required, compliance with the visible fugitive emission limitation shall be determined in accordance with Method 9 as set forth in “Appendix on Test Methods” in 40 CFR, Part 60, (“Standards of Performance for New Stationary Sources”) and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(d) of OAC rule 3745-17-03.

g) Miscellaneous Requirements

(1) None.

15. T003, Gasoline Denaturant Tank, 56,000 Gallons

Operations, Property and/or Equipment Description:

Gasoline Denaturant Internal Floating Roof Tank, 56,000 Gallons

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)	1.49 tons volatile organic compounds (VOC) per rolling, 12-month period See b)(2)a.
b.	OAC rule 3745-31-05(A)(3)(a)(ii)	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the potential to emit is less than 10 tons/year taking into account the federally enforceable restriction in c)(1).
c.	OAC rule 3745-21-09(L)	See b)(2)b. through b)(2)d. and d)(1)
d.	40 CFR, Part 60, Subpart Kb 40 CFR 60.112b 40 CFR 60.113b 40 CFR 60.115b 40 CFR 60.116b	 See b)(2)b. through b)(2)m. and c)(2) See d)(2) through d)(5) and e)(2) See d)(6) and e)(3) through e)(5) See d)(7) through d)(8) and e)(6)

(2) Additional Terms and Conditions

a. The federally enforceable emission limitation in b)(1)a. was established for the purpose of limiting PTE to avoid PSD and MACT applicability. The federally enforceable emission limitations is based on the operational restrictions contained in c)(1).

b. The fixed roof storage tank shall be equipped with an internal floating roof.

c. The automatic bleeder vents shall be closed at all times except when the roof is floated off or landed on the roof leg supports, and the rim vents, if provided, shall be set to open

when the roof is being floated off the roof leg supports or is at the manufacturer's recommended setting.

d. All openings, except stub drains, shall be equipped with a cover, seal or lid which is to be in a closed position at all times except when in actual use for tank gauging or sampling.

e. The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at 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.

f. Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:

i. A foam- or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal). A liquid-mounted seal means a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank.

ii. Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.

iii. A mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

g. Each opening in a 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.

h. Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.

i. Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

j. Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.

k. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening.

l. Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.

m. Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

c) Operational Restrictions

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

a. The use of an internal floating roof; and

b. The maximum throughput rate for this emissions unit shall not exceed 3,076,923 gallons of denaturant, based upon a rolling, 12-month summation of the throughput rates.

(2) The maximum true vapor pressure of organic liquid stored in this storage tank shall not exceed 11.11 psia.

d) Monitoring and/or Recordkeeping Requirements

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

a. The types of petroleum liquids stored in the tank.

b. The maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute. Available data on the storage temperature may be used to determine the maximum true vapor pressure as in the following:

i. For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service.

ii. For refined petroleum products the vapor pressure may be obtained by the following:

(a) Available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517 (incorporated by reference--see Sec. 60.17), unless Ohio EPA, NWDO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).

(b) The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa or with physical properties that preclude determination by the recommended method is to be determined from available data and recorded if the estimated maximum true vapor pressure is greater than 3.5 kPa.

iii. For other liquids, the vapor pressure:

(a) May be obtained from standard reference texts, or

(b) Determined by ASTM Method D2879-83 (incorporated by reference--see Sec. 60.17); or

(c) Measured by an appropriate method approved by Ohio EPA, NWDO; or

(d) Calculated by an appropriate method approved by Ohio EPA, NWDO.

(2) Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with 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.

(3) For vessels equipped with a liquid-mounted or mechanical shoe primary seal, 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 Ohio EPA, NWDO in the inspection report required in e)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(4) For vessels equipped with a double-seal system as specified in b)(2)f.ii:

a. Visually inspect the vessel as specified in d)(5) at least every 5 years; or

b. Visually inspect the vessel as specified in d)(3).

(5) Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in d)(3) and d)(4)b. and at intervals no greater than 5 years in the case of vessels specified in d)(4)a.

(6) Keep a record of each inspection performed as required by d)(2), d)(3), d)(4), and d)(5). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

(7) The owner or operator shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel (shall be kept for the life of the source).

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

a. The throughput rate for each month, in gallons; and

b. The rolling, 12-month summation of the throughput rates, in gallons.

e) Reporting Requirements

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

a. All exceedances of the rolling, 12-month limitation of the material throughput, in gallons, for this emissions unit in c)(1).

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

(2) The permittee shall notify Ohio EPA, NWDO in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by d)(2) and d)(5) to afford Ohio EPA, NWDO the opportunity to have an observer present. If the inspection required by d)(5) is not planned and the owner or operator could not have known about the inspection 30 days in advance or refilling the tank, the owner or operator shall notify Ohio EPA, NWDO at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was

unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by Ohio EPA, NWDO at least 7 days prior to the refilling.

(3) The permittee shall furnish Ohio EPA, NWDO with a report that describes the control equipment and certifies that the control equipment meets the specifications of b)(2)e. through b)(2)m. and d)(2). This report shall be an attachment to the notification of the actual date of initial startup of an affected facility postmarked within 15 days after such date.

(4) If any of the conditions described in d)(3) are detected during the annual visual inspection required by d)(3), a report shall be furnished to Ohio EPA, NWDO within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.

(5) After each inspection required by d)(4) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in d)(4)b., a report shall be furnished to Ohio EPA, NWDO within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of b)(2)e. through b)(2)m. or d)(4) and list each repair made.

(6) If the permittee placed, stored, or held in this emissions unit any petroleum liquid with a true vapor pressure which was greater than 11.11 pounds per square inch absolute, the permittee shall notify Ohio EPA NWDO within 30 days of becoming aware of the occurrence.

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

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

1.49 tons VOC per rolling, 12-month period

<u>Applicable Compliance Method:</u>

The permittee shall demonstrate compliance by calculations as determined by U.S. EPA AP-42 Chapter 7.1 calculations with a maximum rolling, 12-month material throughput of 3,076,923 gallons.

g) Miscellaneous Requirements

(1) None.

16. T004, Denatured Ethanol Tank, 2,010,000 Gallons

Operations, Property and/or Equipment Description:

Denatured Ethanol Internal Floating Roof Tank, 2,010,000 Gallons

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)	0.89 ton volatile organic compounds (VOC) per rolling, 12-month period See b)(2)a.
b.	OAC rule 3745-31-05(A)(3)(a)(ii)	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the potential to emit is less than 10 tons/year taking into account the federally enforceable restriction in c)(1).
c.	OAC rule 3745-21-09(L)	See b)(2)n.
d.	40 CFR, Part 60, Subpart Kb 40 CFR 60.112b 40 CFR 60.113b 40 CFR 60.115b 40 CFR 60.116b	 See b)(2)b. through b)(2)m. and c)(2) See d)(2) through d)(5) and e)(2) See d)(6) and e)(3) through e)(5) See d)(7) through d)(8) and e)(6)

(2) Additional Terms and Conditions

a. The federally enforceable emission limitation in b)(1)a. was established for the purpose of limiting PTE to avoid PSD and MACT applicability. The federally enforceable emission limitations is based on the operational restrictions contained in c)(1).

b. The fixed roof storage tank shall be equipped with an internal floating roof.

c. The automatic bleeder vents shall be closed at all times except when the roof is floated off or landed on the roof leg supports, and the rim vents, if provided, shall be set to open when the roof is being floated off the roof leg supports or is at the manufacturer's recommended setting.

d. All openings, except stub drains, shall be equipped with a cover, seal or lid which is to be in a closed position at all times except when in actual use for tank gauging or sampling.

e. The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at 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.

f. Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:

i. A foam- or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal). A liquid-mounted seal means a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank.

ii. Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.

iii. A mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

g. Each opening in a 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.

h. Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.

i. Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

j. Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.

k. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening.

l. Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.

m. Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

n. OAC rule 3745-21-09(L) is not applicable because this tank does not store petroleum liquids as defined in OAC rule 3745-21-01(E)(15).

c) Operational Restrictions

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

a. The use of an internal floating roof; and

b. The maximum throughput rate for this emissions unit shall not exceed 123,076,923 gallons, based upon a rolling, 12-month summation of the throughput rates.

(2) The maximum true vapor pressure of organic liquid stored in this storage tank shall not exceed 11.11 pound per square inch absolute.

d) Monitoring and/or Recordkeeping Requirements

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

a. The types of petroleum liquids stored in the tank.

b. The maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute. Available data on the storage temperature may be used to determine the maximum true vapor pressure as in the following:

i. For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the

maximum local monthly average ambient temperature as reported by the National Weather Service.

ii. For refined petroleum products the vapor pressure may be obtained by the following:

(a) Available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517 (incorporated by reference--see Sec. 60.17), unless Ohio EPA NWDO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).

(b) The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa or with physical properties that preclude determination by the recommended method is to be determined from available data and recorded if the estimated maximum true vapor pressure is greater than 3.5 kPa

iii. For other liquids, the vapor pressure:

(a) May be obtained from standard reference texts, or

(b) Determined by ASTM Method D2879-83 (incorporated by reference--see Sec. 60.17); or

(c) Measured by an appropriate method approved by Ohio EPA, NWDO; or

(d) Calculated by an appropriate method approved by Ohio EPA, NWDO.

(2) Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel.

(3) For vessels equipped with a liquid-mounted or mechanical shoe primary seal, 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 OEPA, NWDO in the inspection report required in e)(3). Such a request for an extension must document that alternate storage capacity is

unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(4) For vessels equipped with a double-seal system as specified in b)(2)f.ii.:

a. Visually inspect the vessel as specified in d)(5) at least every 5 years; or

b. Visually inspect the vessel as specified in d)(3).

(5) Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in d)(3) and d)(4)b. and at intervals no greater than 5 years in the case of vessels specified in d)(4)a.

(6) Keep a record of each inspection performed as required by d)(2), d)(3), d)(4), and d)(5). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

(7) The owner or operator shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel (shall be kept for the life of the source).

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

a. The throughput rate for each month, in gallons; and

b. The rolling, 12-month summation of the throughput rates, in gallons.

e) Reporting Requirements

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

a. All exceedances of the rolling, 12-month limitation of the material throughput, in gallons, for this emissions unit in c)(1).

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

(2) Notify Ohio EPA, NWDO in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by d)(2) and d)(5) to afford Ohio EPA, NWDO the opportunity to have an observer present. If the inspection required by d)(5) is not planned and the owner or operator could not have known about the inspection 30 days in advance or refilling

the tank, the owner or operator shall notify Ohio EPA, NWDO at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by Ohio EPA, NWDO at least 7 days prior to the refilling.

(3) Furnish Ohio EPA, NWDO with a report that describes the control equipment and certifies that the control equipment meets the specifications of b)(2)e. through b)(2)m. and d)(2). This report shall be an attachment to the notification of the actual date of initial startup of an affected facility postmarked within 15 days after such date.

(4) If any of the conditions described in d)(3) are detected during the annual visual inspection required by d)(3), a report shall be furnished to Ohio EPA, NWDO within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.

(5) After each inspection required by d)(4) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in d)(4)b., a report shall be furnished to Ohio EPA, NWDO within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of b)(2)e. through b)(2)m. or d)(4) and list each repair made.

(6) If the permittee placed, stored, or held in this emissions unit any petroleum liquid with a true vapor pressure which was greater than 11.11 pounds per square inch absolute, the permittee shall notify Ohio EPA NWDO within 30 days of becoming aware of the occurrence.

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

0.89 ton VOC per rolling, 12-month period

Applicable Compliance Method:

The permittee shall demonstrate compliance by calculations as determined by U.S. EPA AP-42 Chapter 7.1 calculations with a maximum rolling, 12-month material throughput of 123,076,923 gallons.

g) Miscellaneous Requirements

(1) None.

17. Emissions Unit Group - Ethanol Day Tanks: T001, T002, T005

EU ID	Operations, Property and/or Equipment Description
T001	Ethanol Day Internal Floating Roof Tank No.1, 96,000 Gallons
T002	Ethanol Day Internal Floating Roof Tank No 2, 96,000 Gallons
T005	200-Proof Ethanol Internal Floating Roof Tank, 96,000 Gallons

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)	<u>From each emissions unit individually:</u> 0.73 ton volatile organic compounds (VOC) per rolling, 12-month period See b)(2)a.
b.	OAC rule 3745-31-05(A)(3)(a)(ii)	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the potential to emit is less than 10 tons/year taking into account the federally enforceable restriction in c)(1).
c.	OAC rule 3745-21-09(L)	See b)(2)n.
d.	40 CFR, Part 60, Subpart Kb 40 CFR 60.112b 40 CFR 60.113b 40 CFR 60.115b 40 CFR 60.116b	 See b)(2)b. through b)(2)m. and c)(2) See d)(2) through d)(5) and e)(2) See d)(6) and e)(3) through e)(5) See d)(7) through d)(8) and e)(6)

(2) Additional Terms and Conditions

a. The federally enforceable emission limitation in b)(1)a. was established for the purpose of limiting PTE to avoid PSD and MACT applicability. The federally enforceable emission limitation is based on the operational restrictions contained in c)(1).

b. The fixed roof storage tank shall be equipped with an internal floating roof.

c. The automatic bleeder vents shall be closed at all times except when the roof is floated off or landed on the roof leg supports, and the rim vents, if provided, shall be set to open when the roof is being floated off the roof leg supports or is at the manufacturer's recommended setting.

d. All openings, except stub drains, shall be equipped with a cover, seal or lid which is to be in a closed position at all times except when in actual use for tank gauging or sampling.

e. The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at 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.

f. Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:

i. A foam- or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal). A liquid-mounted seal means a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank.

ii. Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.

iii. A mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

g. Each opening in a 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.

h. Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.

i. Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

j. Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.

k. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening.

l. Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.

m. Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

n. OAC rule 3745-21-09(L) is not applicable because this tank does not store petroleum liquids as defined in OAC rule 3745-21-01(E)(15).

c) Operational Restrictions

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

a. The use of an internal floating roof; and

b. The maximum throughput rate for each emissions unit individually shall not exceed 120,000,000 gallons, based upon a rolling, 12-month summation of the throughput rates.

(2) The maximum true vapor pressure of organic liquid stored in these storage tanks shall not exceed 11.11 pound per square inch absolute.

d) Monitoring and/or Recordkeeping Requirements

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

a. The types of petroleum liquids stored in each tank.

b. The maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square

inch absolute. Available data on the storage temperature may be used to determine the maximum true vapor pressure as in the following:

i. For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service.

ii. For refined petroleum products the vapor pressure may be obtained by the following:

(a) Available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517 (incorporated by reference--see Sec. 60.17), unless Ohio EPA NWDO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).

(b) The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa or with physical properties that preclude determination by the recommended method is to be determined from available data and recorded if the estimated maximum true vapor pressure is greater than 3.5 kPa

iii. For other liquids, the vapor pressure:

(a) May be obtained from standard reference texts, or

(b) Determined by ASTM Method D2879-83 (incorporated by reference--see Sec. 60.17); or

(c) Measured by an appropriate method approved by Ohio EPA, NWDO; or

(d) Calculated by an appropriate method approved by Ohio EPA, NWDO.

(2) Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel.

(3) For vessels equipped with a liquid-mounted or mechanical shoe primary seal, 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 Ohio EPA, NWDO in the inspection report required in e)(4). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(4) For vessels equipped with a double-seal system as specified in b)(2)f.ii.:

a. Visually inspect the vessel as specified in d)(5) at least every 5 years; or

b. Visually inspect the vessel as specified in d)(3).

(5) Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in d)(3) and d)(4)b. and at intervals no greater than 5 years in the case of vessels specified in d)(4)a.

(6) Keep a record of each inspection performed as required by d)(2), d)(3), d)(4), and d)(5). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

(7) The owner or operator shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel (shall be kept for the life of the source).

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

a. The throughput rate for each month, in gallons; and

b. The rolling, 12-month summation of the throughput rates, in gallons.

e) Reporting Requirements

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

a. All exceedances of the rolling, 12-month limitation of the material throughput, in gallons, for this emissions unit in c)(1).

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

(2) Notify Ohio EPA, NWDO in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by d)(2) and d)(5) to afford Ohio EPA, NWDO the opportunity to have an observer present. If the inspection required by d)(5) is not planned and the owner or operator could not have known about the inspection 30 days in advance or refilling the tank, the owner or operator shall notify the OEPA, NWDO at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by Ohio EPA, NWDO at least 7 days prior to the refilling.

(3) Furnish Ohio EPA, NWDO with a report that describes the control equipment and certifies that the control equipment meets the specifications of b)(2)e. through b)(2)m. and d)(1). This report shall be an attachment to the notification of the actual date of initial startup of an affected facility postmarked within 15 days after such date.

(4) If any of the conditions described in d)(3) are detected during the annual visual inspection required by d)(3), a report shall be furnished to Ohio EPA, NWDO within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.

(5) After each inspection required by d)(4) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in d)(4)b., a report shall be furnished to Ohio EPA, NWDO within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of b)(2)e. through b)(2)m. or d)(4) and list each repair made.

(6) If the permittee placed, stored, or held in this emissions unit any petroleum liquid with a true vapor pressure which was greater than 11.11 pounds per square inch absolute, the permittee shall notify Ohio EPA NWDO within 30 days of becoming aware of the occurrence.

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

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

0.73 ton VOC per rolling, 12-month period from each emissions unit individually

<u>Applicable Compliance Method:</u>

The permittee shall demonstrate compliance by calculations as determined by U.S. EPA AP-42 Chapter 7.1 calculations with a maximum rolling, 12-month material throughput of 120,000,000 gallons.

g) Miscellaneous Requirements

(1) None.

18. T006, Denatured Ethanol Tank, 1,500,000 Gallons

Operations, Property and/or Equipment Description:

Denatured Ethanol Tank, 1,500,000 Gallons

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)	0.90 ton volatile organic compounds (VOC) per rolling, 12-month period See b)(2)a.
b.	OAC rule 3745-31-05(A)(3)(a)(ii)	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the potential to emit is less than 10 tons/year taking into account the federally enforceable restriction in c)(1).
c.	OAC rule 3745-21-09(L)	See b)(2)r.
d.	40 CFR, Part 60, Subpart Kc	See b)(2)b. through b)(2)q., c)(2), c)(3), d)(2) through d)(8) and e)(2) through e)(8).
e.	40 CFR, Part 60, Subpart A	See 40 CFR 60.1 through 60.19

(2) Additional Terms and Conditions

a. The federally enforceable emission limitation in b)(1)a. are established for the purpose of limiting PTE to avoid PSD and MACT applicability. The federally enforceable emission limitations are based on the operational restrictions contained in c)(1).

b. The internal floating roof (IFR) 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 IFR 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 roof supports, the process of filling,

emptying or refilling shall be continuous and shall be accomplished as rapidly as possible.

c. The IFR shall be equipped with the following closure devices between the wall of the storage vessel and the edge of the IFR:

i. 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 IFR. The lower seal is referred to as the primary seal, and the upper seal is referred to as the secondary seal.

ii. The primary seal must be either a mechanical shoe seal or a liquid-mounted seal. If a mechanical shoe seal is used, it must be installed so that one end of the shoe extends into the stored volatile organic liquid (VOL) and the other end extends a minimum vertical distance of 6 inches (15 centimeters) above the stored organic liquid surface.

iii. The secondary seal must be rim-mounted.

d. Each opening in a noncontact IFR except for automatic bleeder vents/vacuum breaker vents and the rim space vents is to provide a projection below the liquid surface.

e. Vacuum breaker/automatic bleeder vents shall be equipped with a gasket and are to be closed at all times, with no visible gaps, when the roof is floating, Vacuum breaker/automatic bleeder vents must be set to open only when the roof is being floated off or is being landed on the roof supports.

f. Rim vents must be equipped with a gasket and must be closed at all times with no visible gaps when the roof is floating. Rim vents must be set to open only when the IFR is not floating or when the pressure beneath the rim seal system exceeds the manufacturer's recommended setting.

g. Each penetration of the IFR for the purpose of sampling must be a gauge hatch/sample well. The gauge hatch/sample well must have a gasketed cover, which must be closed at all times, with no visible gaps, except when the hatch or well must be opened for access.

h. Each access hatch and gauge float well must be equipped with a cover that is gasketed and that is bolted or otherwise mechanically secured. The cover must be closed and must be bolted or otherwise mechanically secured at all times, with no visible gaps, except when the hatch or well must be opened for access.

i. Each penetration of the IFR that allows for passage of a column supporting the fixed roof must have a flexible fabric sleeve seal or a gasketed sliding cover.

j. Each penetration of the IFR that allows for passage of an unslotted leg ladder or unslotted ladder/guidepole combination must have a gasketed sliding cover. The cover

must be closed at all times, with no visible gaps, except when the well must be opened for access.

k. Each slotted guidepole must be equipped with one of the controls specified below. The covers must be designed to be closed at all times, with no visible gaps, except when the cover must be opened for access.

i. Gasketed sliding well cover, with pole sleeve. The sleeve must extend into the stored liquid.

ii. Gasketed sliding well cover, with pole sleeve and pole wiper. The sleeve must extend into the stored liquid.

iii. Gasketed sliding well cover, with pole float and pole wiper. The wiper or seal of the pole float must be at or above the height of the pole wiper.

iv. Gasketed sliding well cover, with pole float, pole sleeve, and pole wiper. The sleeve must extend into the stored liquid. The wiper or seal of the pole float must be at or above the height of the pole wiper.

v. A flexible device that completely encloses the slotted guidepole and eliminates the hydrocarbon vapor emissions pathway from inside the storage vessel through the guidepole slots to the outside air; a gasketed guidepole cover at the top of the guidepole; and a gasketed sliding well cover positioned at the top of the guidepole well that seals any openings between the well cover and the guidepole (*e.g.,* pole wiper), any openings between the well cover and any other objects that pass through the well cover, and any other openings in the top of the guidepole well.

l. Ladder-slotted guidepole combination wells must be equipped with a gasketed sliding well cover and a ladder sleeve. The sliding well cover must be designed to be closed at all times with no visible gaps, except when gauging or sampling.

m. Unslotted guidepoles must be equipped with one of the controls specified below. The controls must be designed to be closed at all times with no visible gaps.

i. A gasketed guidepole cover at the top of the guidepole; a gasketed sliding well cover; and a pole sleeve. The guidepole cover must be closed at all times, except when required to be opened for access. The gasketed sliding well cover must seal any openings between the well cover and the guidepole, any openings between the well cover and any other objects that pass through the well cover, and any other openings in the top of the guidepole well.

ii. A gasketed guidepole cover at the top of the guidepole; a gasketed sliding well cover; and a pole wiper. The guidepole cover must be closed at all times, except when required to be opened for access. The gasketed sliding well cover must seal any openings between the well cover and the guidepole (*e.g.,* pole wiper), any openings between the well cover and any other objects that pass through the well cover, and any other openings in the top of the guidepole well.

n. Except for leg sleeves and stub drains, each opening in the IFR not specified in b)(2)e. through b)(2)m. of this section, must 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 must be opened for access. The cover or lid must be equipped with a gasket.

o. The storage tank may be equipped with an alternative system that is equivalent to those described in paragraphs b)(2)b. through b)(2)n., as applicable, as provided in §60.114c.

p. Equip, maintain, and operate each IFR control system to maintain the vapor concentration above the floating roof at or below 25 percent of the lower explosive limit (LEL) on a 5-minute rolling average basis without the use of purge gas.

q. The permittee must equip the storage vessel with an alarm system that provides a visual or audible signal that alerts the operator when the IFR is approaching the landed height and that provides a separate visual or audible signal to alert the operator when the roof has landed. The roof is considered landed when the floating roof first rests on supports or when the vacuum breaker/automatic bleeder vent begins to open, whichever is first (for example, when using a leg-actuated vent that triggers the vent prior to resting on the roof supports).

r. 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)(15).

c) Operational Restrictions

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

a. The use of an internal floating roof; and

b. The maximum throughput rate for this emissions unit shall not exceed 123,076,923 gallons, based upon a rolling, 12-month summation of the throughput rates.

To ensure federal enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the material throughput rates specified in the following table:

Maximum Allowable Cumulative Material Throughput Rates:

Month(s)	Maximum Allowable Cumulative Throughput (gallons)
1 – 6	61,538,461
1 – 12	123,075,923

After the first 12 months of operation following the issuance of this permit, compliance with the material throughput limitations shall be based upon a rolling, 12-month summation of the monthly material throughput rates.

(2) The maximum true vapor pressure of organic liquid stored in this storage tank shall not exceed 11.11 pound per square inch absolute (psia).

(3) The following requirements must be met during emptying and degassing of a storage vessel until the vapor space concentration in the storage vessel is less than 10 percent of the LEL or, for nonflammable liquids, 5,000 ppmv as methane. The permittee must determine the LEL or methane concentration using the process instrumentation or a portable measurement device and follow procedures for calibration and maintenance according to manufacturer's specifications. The permittee must check instrument calibration and check the instrumental offset response each day the instrument is used and prior to discontinuing controlled degassing to confirm the accuracy of the instrument's readings.

a. Remove liquids from the storage vessel as much as practicable. Chemicals or a diluent such as a distillate fuel may be introduced into the storage vessel for the purpose of reducing vapor concentration before or during active degassing.

b. Comply with one of the following:

i. Reduce total VOC emissions by venting emissions through a closed vent system to a flare or enclosed combustion device for which you elect to comply with the flare provisions and meet the requirements specified in 40 CFR 60.112c(d)(5).

ii. Reduce total VOC emissions by 98 weight percent by venting emissions through a closed vent system to any combination of non-flare control devices.

iii. Reduce total VOC emissions by routing emissions to a fuel gas system or process and meet the requirements specified in 40 CFR 60.112c(d)(6).

c. For floating roof storage vessels, the storage vessel may be opened to set up equipment (*e.g.,* making connections to a temporary control device) for the shutdown operations but must not be actively degassed during this time period.

d) Monitoring and/or Recordkeeping Requirements

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

a. The types of petroleum liquids stored in the tank;

b. The period of storage of the petroleum liquid stored in the tank; and

c. The maximum true vapor pressure of each VOL stored according to the following requirements:

i. For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service.

ii. Prior to the initial filling of the storage vessel or to the refilling of the storage vessel with a new VOL, the highest maximum true vapor pressure for the range

of anticipated liquids to be stored, including mixtures for which you can define the range of concentrations for constituents in the mixture or with a known maximum Reid vapor pressure, must be determined using any one of the methods below:

(a) As obtained from standard reference texts; or

(b) Determined by ASTM Method D6377-20 (incorporated by reference – see Sec. 60.17); or

(c) Determined by ASTM Method D6378-22 (incorporated by reference – see Sec. 60.17); or

(d) Measured by an appropriate method approved by the Administrator of U.S. EPA.

(2) The permittee shall visually inspect the IFR, the primary seal, and the secondary seal (if one is in service), and deck fittings prior to filling the storage vessel with VOL. If there are holes, tears or other openings in the primary seal, the secondary seal or the seal fabric or defects in the IFR, or a rim seal or deck fitting control is not meeting the applicable requirements, the owner or operator shall repair the items before filling the storage vessel.

(3) The permittee shall visually inspect the IFR and the primary seal or the secondary seal (if one is in service) and deck fittings through manholes and roof hatches on the fixed roof and conduct LEL monitoring at least once every 12 months after initial fill. Any of the conditions described in d)(3)a. through f. constitutes inspection failure.

a. Stored liquid on the floating roof;

b. The IFR is not resting on the surface of the VOL inside the storage vessel;

c. Holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric;

d. Defects in the IFR;

e. A rim seal or deck fitting control not meeting the applicable requirements in §60.112c(b)(2) through (13); or

f. The concentration measured according to paragraph 40 CFR 60.113c(a)(3) exceeds 25 percent of the LEL.

Identification of holes or tears in the rim seal is required only for the seal that is visible from the top of the storage vessel. You must 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 storage vessel cannot be emptied within 45 days, you may request a 30-day extension from Ohio EPA, NWDO in the inspection report required in e)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the storage vessel will be emptied as soon as possible.

(4) The permittee shall visually inspect the IFR, 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, or at a frequency no greater than every 120 calendar months, whichever occurs first. Any of the conditions described in d)(4)a. through c. constitutes an inspection failure.

a. Defects in the IFR;

b. Holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric; or

c. A rim seal or deck fitting control not meeting the applicable requirements in §60.112c(b)(2) through (13).

The permittee must repair the items as necessary so that none of the conditions specified above exist before refilling the storage vessel with VOL. The inspection may be performed entirely from the top side of the floating roof, as long as there is visual access to all deck fittings and rim seal system specified in § 60.112c(b). the permittee must repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required above cannot be repaired within 45 days and if the storage vessel cannot be emptied within 45 days, you may request a 30-day extension from Ohio EPA NWDO in the inspection report required in e)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the storage vessel will be emptied as soon as possible.

(5) The permittee shall keep a record of each inspection performed as required by d)(2), d)(3) and d)(4). 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, IFR and fittings).

(6) For each LEL monitoring event required by d)(3), keep the following records:

a. Date and time of the LEL monitoring, and the storage vessel being monitored.

b. A description of the monitoring event (annual monitoring conducted concurrent with visual inspection required under § 60.113c(a)(2)(i); re-monitoring due to high winds during annual monitoring; re-monitoring after repair attempt; other monitoring event as required by the Administrator).

c. Wind speed at the top of the storage vessel on the date of LEL monitoring.

d. The LEL meter manufacturer and model number used, as well as an indication of whether tubing was used during the LEL monitoring, and if so, the type and length of tubing used.

e. Calibration checks conducted before and after making the measurements, including both the span check and instrumental offset. This includes the hydrocarbon used as the calibration gas, the Certificate of Analysis for the calibration gas(es), the results of the calibration check, and any corrective action for calibration checks that do not meet the required response.

f. Location of the measurements and the location of the floating roof.

g. Each measurement (taken at least once every 15 seconds). The records should indicate whether the recorded values were automatically corrected using the meter's programming. If the values were not automatically corrected, record both the raw (as the calibration gas) and corrected measurements, as well as the correction factor used.

h. Each of the 5-minute rolling average readings.

i. If the vapor concentration of the storage vessel was above 25 percent of the LEL on a 5-minute rolling average basis, a description of whether the floating roof was repaired, replaced, or taken out of service.

(7) Maintain records necessary to demonstrate compliance with the requirements in § 60.112c(e) including, if appropriate, records of existing standard site procedures used to empty and degas (deinventory) equipment for safety purposes.

(8) The permittee shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel (shall be kept for the life of the source).

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

a. The throughput rate for each month, in gallons;

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

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

e) Reporting Requirements

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

a. All exceedances of the rolling, 12-month limitation of the material throughput, in gallons, for this emissions unit in c)(1).

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

(2) You shall submit an initial notification to the Administrator within 60 days after becoming an affected storage vessel. The initial notification shall contain required information pursuant to §60.116c(a).

(3) After each inspection required by d)(2) and d)(3) that finds holes or tears in the seal or seal fabric, or defects in the IFR, or other control equipment defects listed in d)(4), a report shall be furnished to Ohio EPA NWDO within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of b)(2)b. through b)(2)l. or d)(3) and list each repair made.

(4) If the permittee placed, stored or held in this emissions unit any petroleum liquid with a true vapor pressure which was greater than 11.11 pounds per square inch absolute, the permittee shall notify Ohio EPA NWDO within 30 days of becoming aware of the occurrence.

(5) Submit notifications for filling and refilling an affected storage vessel as specified in paragraph (b)(1) of § 60.116c.

a. As specified in § 60.113c(a)(4) and (b)(7)(ii), you must notify the Administrator at least 30 days prior to inspection of each storage vessel for which an inspection is required by § 60.113c(a)(1), (a)(2)(ii) or (b)(7) to afford the Administrator the opportunity to have an observer present. Submit the notification using CEDRI as specified in paragraph (f) of this section. If the inspection required by § 60.113c(a)(2)(ii) or (b)(7) is not planned and you could not have known about the inspection 30 days in advance of refilling the storage vessel, you must notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation using CEDRI demonstrating why the inspection was unplanned.

(6) Semiannual reports required by NSPS Kc in accordance with § 60.116c(c)(1) through (12) shall be submitted through CEDRI and eBusiness Center.

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

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

0.90 ton VOC per rolling, 12-month period

<u>Applicable Compliance Method:</u>

The permittee shall demonstrate compliance by calculations as determined by U.S. EPA AP-42 Chapter 7.1 calculations with a maximum rolling, 12-month material throughput of 123,076,923 gallons.

g) Miscellaneous Requirements

(1) None.