State of Ohio Environmental Protection Agency

Street Address: Lazarus Gov. Center **TELE:** (614) 644-3020 **FAX:** (614) 644-2329 Mailing Address: Lazarus Gov. Center

RE: DRAFT PERMIT TO INSTALL **CERTIFIED MAIL**
DEFIANCE COUNTY
Application No: 03-14023
DATE: 8/14/2003

Northwest Ethanol, LLC
Lynn Bergman
P.O. Box 4505
Sherwood, OH 43556

You are hereby notified that the Ohio Environmental Protection Agency has made a draft action recommending that the Director issue a Permit to Install for the air contaminant source(s) [emissions unit(s)] shown on 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 proposed installation. A public notice concerning the draft permit will appear in the Ohio EPA Weekly Review and the newspaper in the county where the facility will be located. Public comments will be accepted by the field office within 30 days of the date of publication in the newspaper. Any comments you have on the draft permit should be directed to the appropriate field office within the comment period. A copy of your comments should also be mailed to Robert Hodanbosi, Division of Air Pollution Control, Ohio EPA, P.O. Box 1049, Columbus, OH, 43266-0149.

A Permit to Install may be issued in proposed of final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install a fee of **$7100** will be due. Please do not submit any payment now.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469. If you have any questions about this draft permit, please contact the field office where you submitted your application, or Mike Ahern, Field Operations & Permit Section at (614) 644-3631.

Very truly yours,

Michael W. Ahern

Michael W. Ahern, Supervisor
Field Operations and Permit Section
Division of Air Pollution Control

CC: USEPA NWDO IN MI

DEFIANCE COUNTY

PUBLIC NOTICE
ISSUANCE OF DRAFT PERMIT TO INSTALL **03-14023** FOR AN AIR CONTAMINANT SOURCE FOR
NORTHWEST ETHANOL, LLC

On 8/14/2003 the Director of the Ohio Environmental Protection Agency issued a draft action of a Permit To Install an air contaminant source for **Northwest Ethanol, LLC**, located at **10133 Rosedale Road, Hicksville**, Ohio.

Installation of the air contaminant source identified below may proceed upon final issuance of Permit To Install 03-14023:

Dry corn milling ethanol production facility (14 sources).

Comments concerning this draft action, or a request for a public meeting, must be sent in writing to the address identified below no later than thirty (30) days from the date this notice is published. All inquiries concerning this draft action may be directed to the contact identified below.

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

DRAFT PERMIT TO INSTALL 03-14023

Application Number:	03-14023
APS Premise Number:	0320000047
Permit Fee:	**To be entered upon final issuance**
Name of Facility:	Northwest Ethanol, LLC
Person to Contact:	Lynn Bergman
Address:	P.O. Box 4505 Sherwood, OH 43556

Location of proposed air contaminant source(s) [emissions unit(s)]:
10133 Rosedale Road
Hicksville, **Ohio**

Description of proposed emissions unit(s):
Dry corn milling ethanol production facility (14 sources).

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) 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 above described emissions unit(s) of environmental pollutants 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

_____
Director

Part I - GENERAL TERMS AND CONDITIONS

A. Permit to Install General Terms and Conditions

1. Compliance Requirements

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

2. Reporting Requirements

The permittee shall submit required reports in the following manner:

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

b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. 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, i.e., 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.)

3. Records Retention Requirements

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.

4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any

information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

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

6. Permit Transfers

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

7. 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.

8. Termination of Permit to Install

This Permit to Install shall terminate within eighteen months of the effective date of the Permit to Install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

9. Construction of New Sources(s)

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may

lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance

that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. 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 the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install 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.

10. 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.

11. Applicability

This Permit To Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

12. Best Available Technology

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

13. Source Operation and Operating Permit Requirements After Completion of Construction

a. If 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 (12) months after commencing

operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).

b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the source(s) covered by this permit.

14. Construction Compliance Certification

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit to Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

15. 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 this Permit to Install.

B. Permit to Install Summary of Allowable Emissions

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

SUMMARY (for informational purposes only)
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

Pollutant	Tons Per Year
VOC	67.9
NOx	88.5
CO	80.3
SO2	27.0
PE	38.3

Emissions Unit ID: **F001**

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
F001 - Paved Roadways and Parking Areas	OAC rule 3745-31-05 (A)(3)	1.6 tons of fugitive particulate emissions (PE)/yr
		no visible PE except for one minute during any 60-minute period
		best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.I.2.c, A.I.2.d, A.I.2.e, A.I.2.f, A.I.2.g, and A.I.2.h)
	OAC rule 3745-17-07 (B)	see Section A.I.2.b
	OAC rule 3745-17-08 (B)	see Section A.I.2.a

2. Additional Terms and Conditions

2.a Northwest Ethanol, LLC is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B).

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

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

<u>paved roadways:</u>

all paved road segments

<u>paved parking areas:</u>

all paved parking areas

2.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 permit application, the permittee has committed to treat the paved roadways and parking areas by sweeping and/or watering at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

2.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 a paved roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Implementation of any control measure may be suspended if unsafe or hazardous driving conditions would be created by its use.

2.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.

2.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.

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

B. Operational Restrictions

None

C. 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 may, upon receipt of written approval from the Northwest District Office, modify the above-mentioned inspection frequencies if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the above-mentioned applicable requirements.

4. 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 4.d. shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

D. Reporting Requirements

1. In accordance with the General Terms and Conditions of this permit, the permittee shall submit deviation (excursion) reports that identify any of the following occurrences:

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

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

E. Testing Requirements

1. Compliance with the emissions limitation(s) in Section A.I.1 of these terms and conditions shall be determined in accordance with the following method(s):

   a. Emission Limitation
   1.6 tons of fugitive PE/yr

   Applicable Compliance Method
   The permittee shall demonstrate compliance by applying a 80% control efficiency for use of best available control measure(s) to maximum potential uncontrolled emission rates of 7.8 tons per year for paved roadways and parking areas. Maximum potential uncontrolled emission rates for paved roadways and parking areas were calculated by multiplying an emission factor of 0.47 lb per vehicle mile traveled [AP-42, section 13.2.1.2 (10/97)] by a maximum annual vehicle miles traveled of 33,400 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 ton per year PE limitation will be assumed.

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

   Applicable Compliance Method
   Compliance with the visible emission limitation listed above shall be determined in accordance with Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(4)(1) through (B)(4)(d) of OAC rule 3745-17-03.

F. Miscellaneous Requirements

None

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P001 - Hammermill	OAC rule 3745-31-05(A)(3)	Control Requirements (See A.2.a)
		0.006 grains particulate emissions (PE)/dscf
		3.3 tons PE/yr
		visible PE shall not exceed 0% opacity, as a 6-minute average
	OAC rule 3745-17-11 (B)	See A.2.b
	OAC rule 3745-17-07 (A)	See A.2.c

2. Additional Terms and Conditions

2.a Best available technology (BAT) control requirements for this emissions unit has been determined to be use of a baghouse with an outlet grain loading of 0.006 lb PE/dscf.

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

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

B. Operational Restrictions

1. The pressure drop across the baghouse controlling this emissions unit shall be maintained within the range of 3.0 to 4.0 inches of water while the emissions unit is in operation.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse controlling this emissions unit while it is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop on a daily basis.

D. Reporting Requirements

1. In accordance with the General Terms and Conditions of this permit, the permittee shall submit pressure drop deviation (excursion) reports that identify that all periods of time during which the pressure drop across baghouse controlling this emissions unit the did not comply with the allowable range specified above.

E. 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 the Ohio EPA, Northwest District Office (NWDO).

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

   e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, NWDO. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be

conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, NWDO's refusal to accept the results of the emission test(s).

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

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

2. Compliance with the emission limitations in Section A.1. of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation
0.006 grains PE/dscf
3.3 tons PE/yr

Applicable Compliance Method
Compliance with the allowable grain outlet concentration shall be demonstrated by the performance testing as described in condition E.1. The permittee shall demonstrate compliance with the annual emission limitation by multiplying the allowable outlet grain loading of 0.006 grains/dscf, a maximum flow rate of the baghouse of 14,950 dscf/min, a maximum operating schedule of 8760 hrs/yr, and by the conversion factors of 7000 grains PE/lb, 60 min/hr and 2000 lbs/ton.

b. Emission Limitation
visible PE shall not exceed 0% opacity, as a 6-minute average

Applicable Compliance Method
If required, compliance with the visible PE limitation shall be determined in accordance with the test methods and procedures in USEPA Method 9, which is located in 40 CFR Part 60, Appendix A.

F. Miscellaneous Requirements

None

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P002 - ethanol production operations, including fermenters, beer well & column, stripper, rectifier, evaporators, methanators, dryers, and waste heat boiler	OAC rule 3745-21-09(DD)	See A.2.d. and F.1.
	40 CFR 60 Subpart VV	See A.2.d. and F.1.
	40 CFR 60 Subpart Db	Monitoring Requirements, (See C.6.) See A.2.c.
	OAC rule 3745-17-11(B)(1)	See A.2.c.
	OAC rule 3745-17-07(A)	See A.2.g.
	OAC rule 3745-23-06 (B)	See A.2.b.
	OAC rule 3745-21-08 (B)	See A.2.f.
	OAC rule 3745-31-05(A)(3)	Control Requirements See A.2.a.
		See A.2.e.
		No visible fugitive particulate emissions (PE) from any building openings (associated with this emissions unit).
		Scrubber Stack 0.07 lb PE/hr,0.3 tons PE/yr

8.16 lbs Volatile Organic Compounds (VOC)/hr, 35.7 tons VOC/yr

visible PE shall not exceed 0% opacity, as a 6-minute average

Oxidizer Stack
4.07 lb PE/hr, 17.8 tons PE/yr

2.04 lb VOC/hr, 8.9 tons VOC/yr

20.20 lbs Nitrogen Oxides (NOx)/hr, 88.5 tons NOx/yr

6.16 lbs Sulfur Dioxide (SO2)/hr, 27.0 tons SO2/yr

18.33 lbs Carbon Monoxide (CO)/hr, 80.3 tons CO/yr

visible PE shall not exceed 10% opacity, as a 6-minute average

emergency flare
no visible PE except for periods not to exceed 5 minutes during any 2 consecutive hours

fugitive VOC emissions
7.2 tons VOC/yr
See A.2.a.v. and A.2.d.

2. Additional Terms and Conditions

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

i. a high efficiency wet scrubber for VOC and PE control on the fermentation process. The scrubber shall meet a minimum control efficiency of 90% for VOC emissions;

ii. a recuperative thermal oxidizer for VOC and CO control on the drying process. The recuperative generative thermal oxidizer shall meet a minimum control efficiency of 90% for CO emissions and 98% for VOC emissions;

iii. firing only natural gas and the use of low NOx burners in the dryers and the recuperative thermal oxidizer/waste heat boiler;

iv. use of an emergency flare with a closed vent system to reduce OC emissions from process upsets; and,

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

2.b The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this permit to install.

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

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

2.e The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-09(DD), 40 CFR 60 Subpart VV, and 40 CFR 60 Subpart Db.

2.f The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this permit to install.

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

B. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

2. The following parameters on the scrubber controlling this emissions unit shall be continuously maintained at all times while the emissions unit is in operation:

   a. the pressure drop shall be maintained at a value of not less than 10.0 inches of water;

b. the scrubber water flow rate shall be continuously maintained at a value of not less than 46 gallons per minute.

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

4. The permittee shall comply with the following restrictions on the emergency flare for 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 the pilot flame;

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

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

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

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall record and maintain daily records of the type and amounts of fuel combusted in this emissions unit.
2. The permittee shall properly install, operate and maintain equipment to continuously monitor the static pressure drop across the scrubber and the scrubber water flow rate while the emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals. The permittee shall collect and record the following information each day:

   a. the pressure drop across the scrubber, in inches of water, on a once per shift basis;

   b. the scrubber water flow rate, in gallons per minute, on a once per shift basis; and,

c. a log or record of operating time for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

3. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the recuperative thermal oxidizer 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 the following information for each day:

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

   b. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.

4. The permittee shall comply with the following monitoring and recordkeeping requirements on the emergency flare for this emissions unit:

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

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

   c. the permittee shall maintain records of the following:

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

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

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

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

   d. the permittee shall collect and record a daily log or record of operating time for the closed

vent system, flare and monitoring equipment.

5. The permittee shall perform daily 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. 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.

6. The permittee shall install*, operate, and maintain equipment to continuously monitor and record NO_x from this emissions unit in the units established in this permit. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 or as approved by the Ohio EPA.

   The permittee shall maintain records of all data obtained by the continuous NO_x monitoring system including, but not limited to, parts per million NO_x on an instantaneous (one-minute) basis, emissions of NO_x in the units established in this permit(with an hourly averaging period), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

   * The installation and operation of a predictive emissions monitor (PEM) may be performed in lieu of installing a continuous emissions monitor as provided for in 40 CFR part 60.48b(g), and with prior approval from Ohio EPA.

7. The permit to install for Emission Units P002, P003, and P004 were evaluated based on the actual materials and the design parameters of each emissions unit's exhaust system, as specified by the permittee in the permit to install application. Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by these emissions units using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

   Pollutant: Acetaldehyde

TLV (mg/m^3): 33.2
Maximum Hourly Emission Rate (lbs/hr):2.0
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 265.4
MAGLC (ug/m^3): 790

Pollutant: Hexane
TLV (mg/m^3): 176.23
Maximum Hourly Emission Rate (lbs/hr):0.39
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 4.9
MAGLC (ug/m^3): 4,196

Pollutant: Butane
TLV (mg/m^3): 1901.7
Maximum Hourly Emission Rate (lbs/hr):0.44
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 2.1
MAGLC (ug/m^3): 45,278

Pollutant: Pentane
TLV (mg/m^3): 1770.55
Maximum Hourly Emission Rate (lbs/hr):0.54
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 2.6
MAGLC (ug/m^3): 42,156

Pollutant: Acetic Acid
TLV (mg/m^3): 24.54
Maximum Hourly Emission Rate (lbs/hr):1.2
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 34.6
MAGLC (ug/m^3): 584

Pollutant: Ethanol
TLV (mg/m^3): 1884
Maximum Hourly Emission Rate (lbs/hr):14.1
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 2848.1
MAGLC (ug/m^3): 44,857

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

satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

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

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

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

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

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

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

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

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

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days

after the deviation occurs.

2. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained at or above the required levels:

   a. the static pressure drop across the scrubber; and,

   b. the scrubber water flow rate.

3. The permittee shall submit deviation (excursion) reports, which identify all 3-hour blocks of time during which the average combustion temperature within the recuperative thermal oxidizer does not comply with the temperature limitation specified above.

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

   a. exceedances of all monitored parameters;

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

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

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

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Ohio EPA, Northwest District Office (NWDO) by January 31 and July 31 of each year and shall cover the previous 6-month period.

6. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA, NWDO documenting the date, commencement and completion times, duration, magnitude, reason (i.e., startup and shutdown periods as defined in Condition A.II.3. above, malfunctions, extreme temperature conditions, etc.), and corrective actions taken (if any), of all

instances of NO_x values in excess of the limits specified in the terms and conditions of this permit. These reports shall also contain the total NO_x emissions for the calendar quarter (in tons).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA, NWDO documenting any continuous NO_x monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031, the permittee shall submit a summary of the excess emission report pursuant to 40 CFR Part 60.7. The summary shall be submitted to the Ohio EPA, NWDO within 30 days following the end of each calendar quarter in a manner prescribed by the Director.

7. Except as otherwise specified, deviation reports shall be submitted in accordance with the General Terms and Conditions of this permit.

8. Pursuant to the New Source Performance Standards (NSPS), the source owner/operator is hereby advised of the requirements to report the following at the appropriate times:

   a. construction date (no later than 30 days after such date);
   b. actual start-up date (within 15 days after such date); and
   c. date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit
Lazarus Government Center
P.O. Box 1049
Columbus, OH 43216-1049

and

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

E. 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 VOC mass emissions limitations from the scrubber controlling this emissions unit, and the for the NOx, CO, VOC, SO_2, and PE mass emissions limitations from the recuperative thermal oxidizer controlling this emissions unit. Emission testing shall also be conducted to demonstrate compliance with the control efficiency limitation for VOCs from the scrubber controlling this emissions unit, and for the control efficiency limitation for CO and VOCs from the recuperative thermal oxidizer controlling this emissions unit. Emission testing shall also be conducted to develop an emission factor for Acetyladehyde emissions from the scrubber controlling this emissions unit

   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; 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 SO2, Methods 1-4 and 6 of 40 CFR Part 60, Appendix A and for VOC Methods 1-4 and 18, 25 or 25a of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, NWDO. The test method(s) which must be employed to demonstrate compliance with the

control efficiencies are specified below. In addition, as part of the "Intent to Test" described below, the permittee shall propose a test methodology for determining the emissions of Acetyladehyde.

d. The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in Methods 18, 25, or 25A of 40 CFR Part 60, Appendix A for VOC emissions and Method 10 of 40 CFR Part 60, Appendix A for CO emissions. 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."

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

f. As part of the performance test, the permittee shall monitor and record the parameters established in conditions B.2 and B.3 and include the results in the stack test report. At that time, the permittee may also propose to re-establish the parameters in conditions B.2 and B.3 based on the stack test results.

g. As part of the performance test, the permittee shall develop an emission factor for Acetyladehyde in the units of lbs Acetyladehyde per million gallons of ethanol processed, and include these results in the stack test report.

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

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

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

2. 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, the permittee shall conduct certification tests of the continuous NO_x monitoring system pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2. Personnel from the Ohio EPA, NWDO shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted within 30 days after the test is completed. Copies of the test results shall be sent to the Ohio EPA, NWDO and the Ohio EPA, Central Office. Certification of the continuous NO_x monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2.

3. Compliance with the emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:
Scrubber Stack
0.07 lb PE/hr,0.3 tons PE/yr
8.16 lbs VOC/hr, 35.7 tons VOC/yr

Applicable Compliance Method: Compliance with the hourly mass emission limitation for VOC shall be demonstrated by the performance testing as described in condition E.1. The annual emission limitation for VOC was developed by multiplying the respective hourly emission limitation by maximum operating schedule of 8760 hours/year, and dividing by 2000 lbs/ton. Therefore, if compliance is shown with the hourly limitation, compliance with the annual limitation will be assumed.

Compliance with the hourly and annual mass emission limitation for PE was developed by multiplying the permittee supplied emission factor of 10.51 lbs PE per million gallons of ethanol processed (based on emissions testing of a similar process) by the maximum annual ethanol capacity of 55,000,000 million gallons of ethanol per year and dividing by 8760 hours/year for the hourly limitation, and by 2000 lbs/ton for the annual limitation. If required, compliance with the hourly PE limitation shall be determined in accordance with 40 CFR Part 60, Appendix A, Methods 1-5.

b. Emission Limitation:

Emissions Unit ID: **P002**

Oxidizer Stack
4.07 lb PE/hr, 17.8 tons PE/yr
2.04 lb VOC/hr, 8.9 TPY VOC
20.20 lbs NOx/hr, 88.5 tons NOx/yr
6.16 lbs SO2/hr, 27.0 tons SO2/yr
18.33 lbs CO/hr, 80.3 tons CO/yr

Applicable Compliance Method:
Compliance with the hourly mass emission limitations shall be demonstrated by the performance testing required in condition E.1. The annual emission limitations were developed by multiplying the respective hourly emission limitation by the maximum

operating schedule of 8760 hours/year, and then dividing by 2000 lbs/ton. Therefore, if compliance is shown with the hourly limitation, compliance with the annual limitation will be assumed.

c. Emission Limitation:
fugitive VOC emissions, 7.2 tons VOC/yr

Applicable Compliance Method:
The annual 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 PTI application #03-14023, Table 4-E. Therefore, if compliance is shown with the LDAR program as described in condition A.2.d. and F.1., compliance with the annual limitation will be assumed.

d. Emission Limitation:
visible PE shall not exceed 0% opacity, as a 6-minute average (scrubber)

visible PE shall not exceed 10% opacity, as a 6-minute average (oxidizer)

Applicable Compliance Method:
If required, compliance with the visible PE limitations shall be determined in accordance with the test methods and procedures in USEPA Method 9, which is located in 40 CFR Part 60, Appendix A.

e. Emission Limitation: No visible fugitive PE from any building openings (associated with this emissions unit).

Applicable Compliance Method:
If required, compliance with the visible PE limitation shall be determined in accordance with the test methods and procedures in USEPA Method 22, which is located in 40 CFR Part 60, Appendix A.

e. Emission Limitation: No visible PE except not to exceed a total of 5 minutes during any 2 consecutive hours.

Applicable Compliance Method:
If required, compliance with the visible PE limitation shall be determined in accordance with the test methods and procedures in USEPA Method 22, which is located in 40 CFR Part 60, Appendix A, using a 2 hour observation period.

F. Miscellaneous Requirements

1. Within 180 days of the start up of this emissions unit, the permittee shall develop an onsite fugitive leak detection and repair (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 (includes operational restrictions, monitoring and recordkeeping, reporting, and testing) of OAC rule 3745-21-09 (DD), and 40 CFR 60 Subpart VV.

2. Prior to the installation of the continuous NO_x monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 2 for approval by the Ohio EPA, Central Office.

   Within 60 days of the start-up of this emissions unit, the permittee shall develop a written quality assurance/quality control plan for the continuous NO_x monitoring system designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standard. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.

3. The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency. The requirements for 40 CFR Part 60 are also federally enforceable.

Emissions Unit ID: **P003**

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P003 - cooling and storage of Dried Distillers Grains with Solubles (DDGS)	OAC rule 3745-31-05(A)(3)	Control Requirements (See A.2.a) 0.001 grains particulate emissions (PE)/dscf 1.1 tons PE/yr visible PE shall not exceed 0% opacity, as a 6-minute average 5.09 lbs Volatile Organic Compounds (VOC)/hr, 22.3 tons VOC/yr
	OAC rule 3745-17-11 (B)	See A.2.b
	OAC rule 3745-17-07 (A)	See A.2.c

2. Additional Terms and Conditions

2.a Best available technology (BAT) for this emissions unit has been determined to be use of a baghouse with an outlet grain loading of 0.001 lb PE/dscf.

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

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

B. Operational Restrictions

1. The maximum annual DDGS throughput rate for this emissions unit shall not exceed 178,500 tons.

2. The pressure drop across the baghouse controlling this emissions unit shall be maintained within the range of 3.0 to 4.0 inches of water while the emissions unit is in operation.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the amount of (tons per month and total tons, to date for the calendar year) DDGS throughput for this emissions unit.

2. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse controlling this emissions unit while it is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop on a daily basis.

3. The permit to install for Emission Units P002, P003, and P004 were evaluated based on the actual materials and the design parameters of each emissions unit's exhaust system, as specified by the permittee in the permit to install application. Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by these emissions units using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

   Pollutant: Acetaldehyde
   TLV (mg/m^3): 33.2
   Maximum Hourly Emission Rate (lbs/hr):2.0
   Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 265.4
   MAGLC (ug/m^3): 790

   Pollutant: Hexane
   TLV (mg/m^3): 176.23
   Maximum Hourly Emission Rate (lbs/hr):0.39
   Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 4.9

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

Pollutant: Butane
TLV (mg/m^3): 1901.7
Maximum Hourly Emission Rate (lbs/hr):0.44
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 2.1
MAGLC (ug/m^3): 45,278

Pollutant: Pentane
TLV (mg/m^3): 1770.55
Maximum Hourly Emission Rate (lbs/hr):0.54
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 2.6
MAGLC (ug/m^3): 42,156

Pollutant: Acetic Acid
TLV (mg/m^3): 24.54
Maximum Hourly Emission Rate (lbs/hr):1.2
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 34.6
MAGLC (ug/m^3): 584

Pollutant: Ethanol
TLV (mg/m^3): 1884
Maximum Hourly Emission Rate (lbs/hr):14.1
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 2848.1
MAGLC (ug/m^3): 44,857

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

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

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

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

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

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

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

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

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

D. Reporting Requirements

1. The permittee shall submit annual reports which identify any exceedances of the annual DDGS throughput limitation, as well as the corrective actions that were taken to achieve compliance. If no deviations occurred during the calendar year, the permittee shall submit an annual report, which states that no deviations occurred during that calendar year. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

2. In accordance with the General Terms and Conditions of this permit, the permittee shall submit pressure drop deviation (excursion) reports that identify that all periods of time during which the pressure drop across baghouse controlling this emissions unit the did not comply with the allowable range specified above.

E. 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 and the mass emission limitation for VOC.

   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, and for VOC

Methods 1-4 and 18, 25 or 25a of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office, (NWDO).

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

e. As part of the performance test(s), the permittee shall verify the emission factor of 0.25 lb VOC/ton of DDGS processed established for this emissions unit.

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

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

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

2. Compliance with the emission limitations in Section A.1. of these terms and conditions shall be determined in accordance with the following methods:

a. <u>Emission Limitation</u>
0.001 grains PE/dscf
1.1 tons PE/yr

<u>Applicable Compliance Method</u>
Compliance with the allowable grain outlet concentration shall be demonstrated by the performance testing as described in condition E.1. The permittee shall demonstrate compliance with the annual emission limitation by multiplying the allowable outlet grain

loading of 0.001 grains/dscf, a maximum flow rate of the baghouse of 30,000 dscf/min, a maximum operating schedule of 8760 hrs/yr, and by the conversion factors of 7000 grains PE/lb, 60 min/hr and 2000 lbs/ton.

b. Emission Limitation
5.09 lbs VOC/hr, 22.3 tons VOC/yr

Applicable Compliance Method
Compliance with the allowable mass emission limitation shall be demonstrated by the performance testing as described in condition E.1. The permittee shall demonstrate compliance with the annual emission limitation by multiplying the emission factor of 0.25 lb VOC/ton DDGS by the maximum annual DDGS throughput of 178,440 tons DDGS/yr, and by a conversion factor of ton/2000 lbs.

c. Emission Limitation
visible PE shall not exceed 0% opacity, as a 6-minute average

Applicable Compliance Method
If required, compliance with the visible PE limitation shall be determined in accordance with the test methods and procedures in USEPA Method 9, which is located in 40 CFR Part 60, Appendix A.

F. Miscellaneous Requirements

None

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P004 - Ethanol and Gasoline Loading Operations	OAC rule 3745-31-05(A)(3)	Control Requirements (See A.2.a., A.2.d., and B.2.) 0.8 tons Volatile Organic Compounds (VOC)/yr no visible PE except for periods not to exceed 5 minutes during any two consecutive hours
	OAC rule 3745-17-11 (B)	See A.2.b.
	OAC rule 3745-17-07 (A)	See A.2.c.
	OAC rule 3745-21-07 (E)	See A.2.a.

2. Additional Terms and Conditions

2.a The Best Available Technology (BAT) control requirements for this emissions unit has been determined to be use of a closed process vent system for all liquid product loadout operations, combusted in a flare.

2.b The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 lbs per hour. 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, as defined in OAC rule 3745-17-01(B)(14) does not include gaseous

fuels used solely as fuel for the flare as a control device.

2.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 the emissions unit is not subject to the requirements of OAC rule 3745-17-11.

2.d The requirements of this rule also include compliance with the requirements of OAC rule OAC rule 3745-21-07 (E).

B. Operational Restrictions

1. The maximum annual ethanol throughput rate for this emissions unit shall not exceed 55,000,000 gallons. The maximum annual gasoline throughput rate for this emissions unit shall not exceed 2,618,000 gallons.

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

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

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

   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 that 60 feet per second; and,

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

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall comply with the following monitoring and recordkeeping requirements on the flare controlling this emissions unit:

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

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

c. the permittee shall maintain records of the following:

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

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

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

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

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

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

3. The permit to install for Emission Units P002, P003, and P004 were evaluated based on the actual materials and the design parameters of each emissions unit's exhaust system, as specified by the permittee in the permit to install application. Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by these emissions units using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Acetaldehyde
TLV (mg/m^3): 33.2
Maximum Hourly Emission Rate (lbs/hr):2.0
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 265.4
MAGLC (ug/m^3): 790

Pollutant: Hexane

TLV (mg/m^3): 176.23
Maximum Hourly Emission Rate (lbs/hr):0.39
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 4.9
MAGLC (ug/m^3): 4,196

Pollutant: Butane
TLV (mg/m^3): 1901.7
Maximum Hourly Emission Rate (lbs/hr):0.44
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 2.1
MAGLC (ug/m^3): 45,278

Pollutant: Pentane
TLV (mg/m^3): 1770.55
Maximum Hourly Emission Rate (lbs/hr):0.54
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 2.6
MAGLC (ug/m^3): 42,156

Pollutant: Acetic Acid
TLV (mg/m^3): 24.54
Maximum Hourly Emission Rate (lbs/hr):1.2
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 34.6
MAGLC (ug/m^3): 584

Pollutant: Ethanol
TLV (mg/m^3): 1884
Maximum Hourly Emission Rate (lbs/hr):14.1
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 2848.1
MAGLC (ug/m^3): 44,857

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

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

modeled;

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

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

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

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

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

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

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

D. Reporting Requirements

1. The permittee shall submit annual reports which identify any exceedances of the annual DDGS throughput limitation, as well as the corrective actions that were taken to achieve compliance. If no deviations occurred during the calendar year, the permittee shall submit an annual report, which states that no deviations occurred during that calendar year. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

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

   a. exceedances of all monitored parameters;

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

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

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

E. Testing Requirements

1. Compliance with the emission limitation(s) in section A.I. of the terms and conditions of this permit shall be determined in accordance with the following method(s):

a. Emission Limitation:
0.9 tons VOC/yr

Applicable Compliance Method:
The permittee shall demonstrate compliance by multiplying the controlled emission factors of 0.02 lbs VOC/thousand gallons of ethanol and 0.21 lbs VOC/thousand gallons of gasoline [as determined through the methodology in AP-42, section 5.2.2 (1/95) in conjunction with the information submitted by the permittee in PTI application #03-14023, Table 4-E] by their maximum annual throughout of 55,000,000 gallons and 2,618,000 gallons respectively, and applying a conversion factor of ton/2000 lbs.

b. Emission Limitation: No visible PE except not to exceed a total of 5 minutes during any 2 consecutive hours.

Applicable Compliance Method:
If required, compliance with the visible PE limitation shall be determined in accordance with the test methods and procedures in USEPA Method 22, which is located in 40 CFR Part 60, Appendix A, using a 2 hour observation period.

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P005 - Cooling Tower	OAC rule 3745-31-05 (A)(3)	See A.2.a. and A.2.b. 1.44 lbs PE/hr & 6.3 tons PE/yr
	OAC rule 3745-17-11 (B)(4)	See A.2.c.
	OAC rule 3745-17-07 (A)(1)	visible particulate emissions shall not exceed 20 percent opacity as a six-minute average, except as provided by rule

2. Additional Terms and Conditions

2.a The Best Available Technology (BAT) control requirements for this emissions unit has been determined to be use of high efficiency drift eliminators.

2.b The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07 (A)(1).

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

B. Operational Restrictions

1. The permittee shall not exceed an average annual total dissolved solids content of 2,500 parts per million (ppm) in this emissions unit.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform the following monitoring requirements for emissions unit P005 on a monthly basis:

   a. test and record the total dissolved solids content, in ppm;

   b. determine the average dissolved solids content, in ppm on an annual basis.

D. Reporting Requirements

1. In accordance with the General Terms and Conditions of this permit, the permittee shall submit deviation (excursion) reports in that identify any exceedances of the average total dissolved solids content.

E. Testing Requirements

1. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

   a. Emission Limitation
   1.44 lbs PE/hr & 6.3 tons PE/yr

   Applicable Compliance Method
   The lbs/hr emission limitation shall was established by applying the maximum drift loss factor 0.005 percent to the maximum average total dissolved solids content of 2,500 ppm and a maximum flow rate of 1,380,000 gallons per hour for the cooling water. Therefore, provided the permittee demonstrates compliance with the average dissolved solids content, compliance with the hourly emission limitation will be assumed. If required, the permittee shall submit a testing proposal which will demonstrate that the maximum drift loss does not exceed 0.005 percent. Compliance with the annual emission limitation shall be demonstrated by the multiplying the hourly emission rate by the maximum operating schedule of 8760 hrs/yr, and by the conversion factor of 2000 lbs/ton.

   b. Emission Limitation
   Visible PE shall not exceed 20 percent opacity as a six-minute average, except as provided by rule

   Applicable Compliance Method

If required, compliance with the visible emissions limitation shall be determined by OAC rule 3745-17-03(B)(1).

F. Miscellaneous Requirements

None

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
		OAC rule 3745-17-08(A)
P901 - Grain Receiving (truck and rail), and transferring, conveying, and storage	OAC rule 3745-31-05(A)(3)	OAC rule 3745-17-11 (B)
		OAC rule 3745-17-07 (A)
		OAC rule 3745-17-07 (B)
	40 CFR Part 60 Subpart DD	

Applicable Emissions Limitations/Control Measures
Control Requirements (See A.2.a) See A.2.f.
Stack Emissions: 0.0053 grains particulate emissions (PE)/dscf, 7.8 tons PE/yr
Fugitive Emissions: 0.4 tons PE/yr
visible stack PE shall not exceed 0% opacity, as a 6-minute average
visible fugitive PE shall not exceed 5% opacity, as a 6-minute average, from any truck and rail unloading
visible fugitive PE shall not exceed 0% opacity, as a 6-minute average, from any grain handling operation,
See A.2.d.
See A.2.b
See A.2.c
See A.2.c
See A.2.e

2. Additional Terms and Conditions

2.a The "Best Available Technology" (BAT) control requirements for this emissions unit has been determined to be the following:

i. for grain receiving, the use of a two-sided enclosure, aspirated to a baghouse;

ii. for transferring/conveying, the use of a total enclosure; and,

iii. for storage, the use of bin vent filters.

2.b Northwest Ethanol LLC is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08.

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

2.d These opacity requirements apply to grain handling operations as they are defined in 40 CFR Part 60 Subpart DD.

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

2.f The requirements of this rule also include compliance with the requirements of 40 CFR Part 60 Subpart DD.

B. Operational Restrictions

1. The maximum annual grain throughput rate for this emissions unit shall not exceed 550,000 tons.

2. The pressure drop across the baghouse controlling this emissions unit shall be maintained within the range of 3.0 to 4.0 inches of water while the emissions unit is in operation.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the amount of (tons per month and total tons, to date for the calendar year) grain throughput for this emissions unit.

2. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse controlling this emissions unit while it is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop on a daily basis.

D. Reporting Requirements

1. The permittee shall submit annual reports which identify any exceedances of the annual grain throughput limitation, as well as the corrective actions that were taken to achieve compliance. If no deviations occurred during the calendar year, the permittee shall submit an annual report, which states that no deviations occurred during that calendar year. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

2. In accordance with the General Terms and Conditions of this permit, the permittee shall submit pressure drop deviation (excursion) reports that identify that all periods of time during which the pressure drop across baghouse controlling this emissions unit the did not comply with the allowable range specified above.

3. Pursuant to the New Source Performance Standards (NSPS), the source owner/operator is hereby advised of the requirements to report the following at the appropriate times:

   a. construction date (no later than 30 days after such date);
   b. actual start-up date (within 15 days after such date); and
   c. date of performance testing (if required, at least 30 days prior to testing).

   Reports are to be sent to:

   Ohio Environmental Protection Agency
   DAPC - Permit Management Unit
   Lazarus Government Center
   P.O. Box 1049
   Columbus, OH 43216-1049

   and

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

E. 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 allowable outlet grain loading concentration and opacity requirements 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, and for Opacity, Method 9 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office (NWDO).

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

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

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

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

2. Compliance with the emission limitations in Section A.1. of these terms and conditions shall be determined in accordance with the following methods:

a. <u>Emission Limitation</u>
0.0053 grains particulate emissions (PE)/dscf
7.8 tons PE/yr

Applicable Compliance Method
Compliance with the allowable grain outlet concentration shall be demonstrated by the performance testing as described in condition E.1. Compliance with the annual emission limitation shall be demonstrated by the multiplying the allowable outlet grain loading of 0.0053 grains/dscf by the maximum flow rate of the baghouse of 39,000 dscf/min, by the maximum operating schedule of 8760 hrs/yr, and by the conversion factors of 7000 grains PE/lb, 60 min/hr, and 2000 lbs/ton.

b. Emission Limitation
visible stack PE shall not exceed 0% opacity, as a 6-minute average

visible fugitive PE shall not exceed 5% opacity, as a 6-minute average, from any truck and rail unloading

visible fugitive PE shall not exceed 0% opacity, as a 6-minute average, from any grain handling operation

Applicable Compliance Method
Compliance with the allowable opacity limitations shall be demonstrated by the performance testing as described in condition E.1

c. Emission Limitation
0.4 tons fugitive PE/yr

Applicable Compliance Method
The permittee shall demonstrate compliance by multiplying an AP-42 emission factor of 0.061 lbs PE/ton grain for grain handling and 0.071 lbs PE/ton for grain receiving (Section 9.9.1 (5/98)) by a maximum annual grain throughput of 550,000 tons grain/yr, by a conversion factor of ton/2000 lbs, and applying a 99% control efficiency for use of a two sided enclosure with aspiration.

F. Miscellaneous Requirements

1. The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency. The requirements for 40 CFR Part 60 are also federally enforceable.

Emissions Unit ID: **P902**

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P902 - Dried Distillers Grains with Solubles (DDGS) handling and loadout	OAC rule 3745-31-05(A)(3)	Control Requirements (See A.2.a) 0.001 grains particulate emissions (PE)/dscf, 0.4 tons (PE)/yr visible PE from the enclosures shall not exceed 5% opacity, as a 6-minute average
	OAC rule 3745-17-08(A)	See A.2.b
	OAC rule 3745-17-11 (B)	See A.2.c
	OAC rule 3745-17-07 (A)	See A.2.d
	OAC rule 3745-17-07 (B)	See A.2.e

2. Additional Terms and Conditions

2.a The Best Available Technology (BAT) control requirements for this emissions unit has been determined to be the following:

i. for DDGS handling, the use of a two-sided enclosure;

ii. for DDGS loadout, the use of two-sided enclosure and use of a baghouse vented to the inside of the enclosure.

2.b Northwest Ethanol LLC is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08.

2.c The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11 (A)(2)(a)(ii), this emissions unit is exempt from the requirements of OAC rule 3745-17-11 (B)(2).

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

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

B. Operational Restrictions

1. The pressure drop across the baghouse controlling this emissions unit shall be maintained within the range of 3.0 to 4.0 inches of water while the emissions unit is in operation.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the buildings housing the DDGS handling and loadout operations. 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. the total duration of any visible emission incident; and,

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

2. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse controlling this emissions unit while it is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop on a daily basis.

D. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the enclosure housing the DDGS handling and loadout operations and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Northwest District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

2. In accordance with the General Terms and Conditions of this permit, the permittee shall submit pressure drop deviation (excursion) reports that identify that all periods of time during which the pressure drop across baghouse controlling this emissions unit the did not comply with the allowable range specified above.

E. Testing Requirements

1. Compliance with the emission limitations in Section A.1. of these terms and conditions shall be determined in accordance with the following methods:

   a. <u>Emission Limitation</u>
   0.001 grains PE/dscf

   <u>Applicable Compliance Method</u>
   Compliance with the hourly emission limitation for PE was developed by dividing the maximum stack emissions of 0.02 lbs PE/hr by the maximum flow rate of the baghouse of 1,800 dscf/min, and by the conversion factors of 7000 grains PE/lb, and 60 min/hr. If required, compliance with the hourly PE limitation shall be determined in accordance with 40 CFR Part 60, Appendix A, Methods 1-5.

   b. <u>Emission Limitation</u>
   0.4 tons PE/yr

   <u>Applicable Compliance Method</u>
   The permittee shall demonstrate compliance by multiplying an AP-42 emission factor of 0.02 lb PE/ton of DDGS [using grain emission factors from Section 9.9.1 (5/98), weighted from multiple processes and the baghouse exhaust, as submitted by the permittee in PTI application #03-14023, Table 6] by a maximum annual throughput of 178,440 tons of DDGS, multiplying by a conversion factor of ton/2000 lbs, and applying a 80% control efficiency for use of a two-sided enclosure.

c. Emission Limitation
Receiving: visible fugitive PE shall not exceed 5% opacity, as a 6-minute average

Applicable Compliance Method
If required, compliance with the visible fugitive PE limitation shall be determined in accordance with the test methods and procedures in USEPA Method 9, which is located in 40 CFR Part 60, Appendix A.

F. Miscellaneous Requirements

None

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
T001 - 165,000 gallon above ground internal floating roof storage tank (190 Proof Ethanol)	OAC rule 3745-31-05(A)(3)	0.3 tons Organic Compounds (OC)/yr See A.2.a through A.2.m.
	OAC rule 3745-21-09(L)	See A.2.o
	40 CFR, Part 60, Subpart Kb	See A.2.n.

2. Additional Terms and Conditions

2.a The Best Available Technology (BAT) control requirements for this emissions unit has been determined to be the use of submerged fill and an internal floating roof.

2.b The fixed roof storage tank shall be equipped with an internal floating roof.

2.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.

2.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.

2.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.

2.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.

2.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.

2.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.

2.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.

2.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.

2.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.

2.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.

2.m Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

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

2.o OAC rule 3745-21-09(L) is not applicable because this tank does not store petroleum liquids as defined in OAC rule 3745-21-01 (E)(13).

B. Operational Restrictions

1. The permittee shall not exceed an annual material throughput rate of 55,000,000 gallons.

2. The maximum true vapor pressure of organic liquid stored in this storage tank shall not exceed 0.754 pound per square inch absolute.

C. 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 the Ohio EPA, Northwest District Office (NWDO) specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).

(b) The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa or with physical properties that preclude determination by the recommended method is to be determined from available data and recorded if the estimated maximum true vapor pressure is greater than 3.5 kPa.

iii. For other liquids, the vapor pressure:

(a) May be obtained from standard reference texts, or

(b) Determined by ASTM Method D2879-83 (incorporated by reference--see Sec. 60.17); or

(c) Measured by an appropriate method approved by the OEPA, NWDO; or

(d) Calculated by an appropriate method approved by the OEPA, 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 D.3. Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

4. For vessels equipped with a double-seal system as specified in A.2.f.ii.:

   a. visually inspect the vessel as specified in C.5. at least every 5 years; or

   b. visually inspect the vessel as specified in C.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 C.3 and C.4.b and at intervals no greater than 5 years in the case of vessels specified in C.4.a.

6. The owner or operator shall keep copies of all reports and records required in D.2, D.3, and D.4, for at least 2 years.

7. Keep a record of each inspection performed as required by C.2, C.3, C.4, and C.5. Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

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

9. The owner or operator shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel (shall be kept for the life of the source).

10. The permittee shall maintain monthly records of the amount of (gallons per month and total

gallons, to date for the calendar year) of material throughput for this emissions unit.

D. Reporting Requirements

1. Notify the OEPA, NWDO in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by C.2 and C.5 to afford the OEPA, NWDO the opportunity to have an observer present. If the inspection required by C.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 the OEPA, NWDO at least 7 days prior to the refilling.

2. Furnish the OEPA, NWDO with a report that describes the control equipment and certifies that the control equipment meets the specifications of A.2.e through A.2.m and C.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.

3. If any of the conditions described in C.3 are detected during the annual visual inspection required by C.3, a report shall be furnished to the OEPA, NWDO within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.

4. After each inspection required by C.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 C.4.b, a report shall be furnished to the OEPA, NWDO within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of A.2.e through A.2.m or C.4 and list each repair made.

5. If the permittee placed, stored, or held in this emissions unit any petroleum liquid with a true vapor pressure which was greater than 0.754 pounds per square inch absolute, the permittee shall notify the Ohio EPA Northwest District Office within 30 days of becoming aware of the occurrence.

6. The permittee shall submit annual deviation (excursion) reports that identify any and all exceedances of the annual material throughput limitation, as well as the corrective actions taken to achieve compliance. If no deviations occurred during a calendar year, the permittee shall submit an annual report which states that no deviations occurred during that year. These reports shall be submitted by January 31 of each year.

E. Testing Requirements

1. Compliance with the emission limitations in section A.1. of the terms and conditions of this permit shall be determined in accordance with the following methods:

   Emission Limitation: 0.3 tons OC/yr

   Applicable Compliance Method: The permittee shall demonstrate compliance by rim seal loss, withdraw loss and deck fitting loss calculations as determined by U.S. EPA Tanks 4.0 program with a maximum annual material throughput of 55,000,000 gallons.

F. Miscellaneous Requirements

None

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
T002 -165,000 gallon above ground internal floating roof storage tank (200 Proof Ethanol)	OAC rule 3745-31-05(A)(3)	0.3 tons Organic Compounds (OC)/yr See A.2.a through A.2.m.
	OAC rule 3745-21-09(L)	See A.2.o
	40 CFR, Part 60, Subpart Kb	See A.2.n.

2. Additional Terms and Conditions

2.a The Best Available Technology (BAT) control requirements for this emissions unit has been determined to be the use of submerged fill and an internal floating roof.

2.b The fixed roof storage tank shall be equipped with an internal floating roof.

2.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.

2.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.

2.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.

2.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.

2.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.

2.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.

2.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.

2.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.

2.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.

2.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.

2.m Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

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

2.o OAC rule 3745-21-09(L) is not applicable because this tank does not store petroleum liquids as defined in OAC rule 3745-21-01 (E)(13).

B. Operational Restrictions

1. The permittee shall not exceed an annual material throughput rate of 55,000,000 gallons.

2. The maximum true vapor pressure of organic liquid stored in this storage tank shall not exceed 0.754 pound per square inch absolute.

C. 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 the Ohio EPA, Northwest District Office (NWDO) specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).

(b) The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa or with physical properties that preclude determination by the recommended method is to be determined from available data and recorded if the estimated maximum true vapor pressure is greater than 3.5 kPa.

iii. For other liquids, the vapor pressure:

(a) May be obtained from standard reference texts, or

(b) Determined by ASTM Method D2879-83 (incorporated by reference--see Sec. 60.17); or

(c) Measured by an appropriate method approved by the OEPA, NWDO; or

(d) Calculated by an appropriate method approved by the OEPA, 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 D.3. Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

4. For vessels equipped with a double-seal system as specified in A.2.f.ii.:

   a. visually inspect the vessel as specified in C.5. at least every 5 years; or

   b. visually inspect the vessel as specified in C.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 C.3 and C.4.b and at intervals no greater than 5 years in the case of vessels specified in C.4.a.

6. The owner or operator shall keep copies of all reports and records required in D.2, D.3, and D.4, for at least 2 years.

7. Keep a record of each inspection performed as required by C.2, C.3, C.4, and C.5. Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

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

9. The owner or operator shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel (shall be kept for the life of the source).

10. The permittee shall maintain monthly records of the amount of (gallons per month and total gallons, to date for the calendar year) of material throughput for this emissions unit.

D. Reporting Requirements

1. Notify the OEPA, NWDO in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by C.2 and C.5 to afford the OEPA, NWDO the opportunity to have an observer present. If the inspection required by C.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 the OEPA, NWDO at least 7 days prior to the refilling.

2. Furnish the OEPA, NWDO with a report that describes the control equipment and certifies that the control equipment meets the specifications of A.2.e through A.2.m and C.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.

3. If any of the conditions described in C.3 are detected during the annual visual inspection required by C.3, a report shall be furnished to the OEPA, NWDO within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.

4. After each inspection required by C.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 C.4.b, a report shall be furnished to the OEPA, NWDO within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of A.2.e through A.2.m or C.4 and list each repair made.

5. If the permittee placed, stored, or held in this emissions unit any petroleum liquid with a true vapor pressure which was greater than 0.754 pounds per square inch absolute, the permittee shall notify the Ohio EPA Northwest District Office within 30 days of becoming aware of the occurrence.

6. The permittee shall submit annual deviation (excursion) reports that identify any and all exceedances of the annual material throughput limitation, as well as the corrective actions taken to achieve compliance. If no deviations occurred during a calendar year, the permittee shall submit an annual report which states that no deviations occurred during that year. These reports shall be submitted by January 31 of each year.

E. Testing Requirements

1. Compliance with the emission limitations in section A.1. of the terms and conditions of this permit shall be determined in accordance with the following methods:

   Emission Limitation: 0.3 tons OC/yr

   Applicable Compliance Method: The permittee shall demonstrate compliance by rim seal loss, withdraw loss and deck fitting loss calculations as determined by U.S. EPA Tanks 4.0 program with a maximum annual material throughput of 55,000,000 gallons.

F. Miscellaneous Requirements

None

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
T003 - -75,000 gallon above ground internal floating roof storage tank (gasoline denaturant)	OAC rule 3745-31-05(A)(3)	0.9 ton Organic Compounds (OC)/yr
		Control requirements (see A.2.a)
		See A.2.n
	OAC rule 3745-21-09(L)	See A.2.b through A.2.d and C.1
	40 CFR, part 60, Subpart Kb	
	40 CFR, Part 60.112b	See A.2.e through A.2.m
	40 CFR, Part 60.113b	See C.2 through C.5 and D.1
	40 CFR Part 60.115b	See C.6 through C.7 and D.2. through D.4
	40 CFR, Part 60.116b	See C.8 through C.10 and D.5

2. Additional Terms and Conditions

2.a The Best Available Technology (BAT) requirements for this emissions unit has been determined to be the use of submerged fill and an internal floating roof and compliance with OAC rule 3745-21-09(L) and 40 CFR Part 60, Subpart Kb.

2.b The fixed roof storage tank shall be equipped with an internal floating roof.

2.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.

2.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.

2.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.

2.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.

2.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.

2.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.

2.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.

2.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.

2.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.

2.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.

2.m Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

2.n The requirements of this rule include compliance with the requirements of OAC rule 3745-21-09(L), and 40 CFR Part 60, Subpart Kb.

B. Operational Restrictions

1. The permittee shall not exceed an annual material throughput rate of 2,618,000 gallons.

2. The maximum true vapor pressure of organic liquid stored in this storage tank shall not exceed 11.1 psia.

C. 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 the Ohio EPA, Northwest District Office (NWDO) specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).

(b) The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa or with physical properties that preclude determination by the recommended method is to be determined from available data and recorded if the estimated maximum true vapor pressure is greater than 3.5 kPa.

iii. For other liquids, the vapor pressure:

(a) May be obtained from standard reference texts, or

(b) Determined by ASTM Method D2879-83 (incorporated by reference--see Sec. 60.17); or

(c) Measured by an appropriate method approved by the OEPA, NWDO; or

(d) Calculated by an appropriate method approved by the OEPA, 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 D.3. Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

4. For vessels equipped with a double-seal system as specified in A.2.f.ii.:

   a. visually inspect the vessel as specified in C.5. at least every 5 years; or

   b. visually inspect the vessel as specified in C.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 C.3 and C.4.b and at intervals no greater than 5 years in the case of vessels specified in C.4.a.

6. The owner or operator shall keep copies of all reports and records required in D.2, D.3, and D.4, for at least 2 years.

7. Keep a record of each inspection performed as required by C.2, C.3, C.4, and C.5. Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

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

9. The owner or operator shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel (shall be kept for the life of the source).

10. The permittee shall maintain monthly records of the amount of (gallons per month and total gallons, to date for the calendar year) of material throughput for this emissions unit.

D. Reporting Requirements

1. Notify the OEPA, NWDO in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by C.2 and C.5 to afford the OEPA, NWDO the opportunity to have an observer present. If the inspection required by C.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 the OEPA, NWDO at least 7 days prior to the refilling.

2. Furnish the OEPA, NWDO with a report that describes the control equipment and certifies that the control equipment meets the specifications of A.2.e through A.2.m and C.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.

3. If any of the conditions described in C.3 are detected during the annual visual inspection required by C.3, a report shall be furnished to the OEPA, NWDO within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.

4. After each inspection required by C.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 C.4.b, a report shall be furnished to the OEPA, NWDO within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of A.2.e through A.2.m or C.4 and list each repair made.

5. If the permittee placed, stored, or held in this emissions unit any petroleum liquid with a true vapor pressure which was greater than 11.1 pounds per square inch absolute, the permittee shall notify the Ohio EPA Northwest District Office within 30 days of becoming aware of the occurrence.

6. The permittee shall submit annual deviation (excursion) reports that identify any and all exceedances of the annual material throughput limitation, as well as the corrective actions taken to achieve compliance. If no deviations occurred during a calendar year, the permittee shall submit an annual report which states that no deviations occurred during that year. These reports shall be submitted by January 31 of each year.

V. Testing Requirements

1. Compliance with the emission limitations in section A.1. of the terms and conditions of this permit shall be determined in accordance with the following methods:

a. Emission Limitation: 0.9 tons OC/yr

Applicable Compliance Method: The permittee shall demonstrate compliance by rim seal loss, withdraw loss and deck fitting loss calculations as determined by U.S. EPA Tanks 4.0 program with a maximum annual material throughput of 2,618,000 gallons.

VI. Miscellaneous Requirements

None

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
T004 --750,000 gallon above ground internal floating roof storage tank (Denatured Ethanol Tank #1)	OAC rule 3745-31-05(A)(3)	0.3 tons Organic Compounds (OC)/yr See A.2.a through A.2.m.
	OAC rule 3745-21-09(L)	See A.2.o.
	40 CFR, Part 60, Subpart Kb	See A.2.n

2. Additional Terms and Conditions

2.a The Best Available Technology (BAT) control requirements for this emissions unit has been determined to be the use of submerged fill and an internal floating roof.

2.b The fixed roof storage tank shall be equipped with an internal floating roof.

2.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.

2.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.

2.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.

2.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.

2.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.

2.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.

2.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.

2.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.

2.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.

2.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.

2.m Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

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

2.o OAC rule 3745-21-09(L) is not applicable because this tank does not store petroleum liquids as defined in OAC rule 3745-21-01 (E)(13).

B. Operational Restrictions

1. The permittee shall not exceed an annual material throughput rate of 55,000,000 gallons.

2. The maximum true vapor pressure of organic liquid stored in this storage tank shall not exceed 0.754 pound per square inch absolute.

C. 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 the Ohio EPA, Northwest District Office (NWDO) specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).

(b) The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa or with physical properties that preclude determination by the recommended method is to be determined from available data and recorded if the estimated maximum true vapor pressure is greater than 3.5 kPa.

iii. For other liquids, the vapor pressure:

(a) May be obtained from standard reference texts, or

(b) Determined by ASTM Method D2879-83 (incorporated by reference--see Sec. 60.17); or

(c) Measured by an appropriate method approved by the OEPA, NWDO; or

(d) Calculated by an appropriate method approved by the OEPA, 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 D.3. Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

4. For vessels equipped with a double-seal system as specified in A.2.f.ii.:

a. visually inspect the vessel as specified in C.5. at least every 5 years; or

b. visually inspect the vessel as specified in C.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 C.3 and C.4.b and at intervals no greater than 5 years in the case of vessels specified in C.4.a.

6. The owner or operator shall keep copies of all reports and records required in D.2, D.3, and D.4, for at least 2 years.

7. Keep a record of each inspection performed as required by C.2, C.3, C.4, and C.5. Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

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

9. The owner or operator shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel (shall be kept for the life of the source).

10. The permittee shall maintain monthly records of the amount of (gallons per month and total gallons, to date for the calendar year) of material throughput for this emissions unit.

D. Reporting Requirements

1. Notify the OEPA, NWDO in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by C.2 and C.5 to afford the OEPA, NWDO the opportunity to have an observer present. If the inspection required by C.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 the OEPA, NWDO at least 7 days prior to the refilling.

2. Furnish the OEPA, NWDO with a report that describes the control equipment and certifies that the control equipment meets the specifications of A.2.e through A.2.m and C.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.

3. If any of the conditions described in C.3 are detected during the annual visual inspection required by C.3, a report shall be furnished to the OEPA, NWDO within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.

4. After each inspection required by C.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 C.4.b, a report shall be furnished to the OEPA, NWDO within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of A.2.e through A.2.m or C.4 and list each repair made.

5. If the permittee placed, stored, or held in this emissions unit any petroleum liquid with a true vapor pressure which was greater than 0.754 pounds per square inch absolute, the permittee shall notify the Ohio EPA NWDO within 30 days of becoming aware of the occurrence.

6. The permittee shall submit annual deviation (excursion) reports that identify any and all exceedances of the annual material throughput limitation, as well as the corrective actions taken to achieve compliance. If no deviations occurred during a calendar year, the permittee shall submit an annual report which states that no deviations occurred during that year. These reports shall be submitted by January 31 of each year.

E. Testing Requirements

1. Compliance with the emission limitations in section A.1. of the terms and conditions of this permit shall be determined in accordance with the following methods:

   Emission Limitation: 0.3 tons OC/yr

   Applicable Compliance Method: The permittee shall demonstrate compliance by rim seal loss, withdraw loss and deck fitting loss calculations as determined by U.S. EPA Tanks 4.0 program

with a maximum annual material throughput of 55,000,000 gallons.

F. Miscellaneous Requirements

None

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
T005 --750,000 gallon above ground internal floating roof storage tank (Denatured Ethanol Tank #2)	OAC rule 3745-31-05(A)(3)	0.3 tons Organic Compounds (OC)/yr See A.2.a through A.2.m.
	OAC rule 3745-21-09(L)	See A.2.o
	40 CFR, Part 60, Subpart Kb	See A.2.n.

2. Additional Terms and Conditions

2.a The Best Available Technology (BAT) control requirements for this emissions unit has been determined to be the use of submerged fill and an internal floating roof.

2.b The fixed roof storage tank shall be equipped with an internal floating roof.

2.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.

2.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.

2.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.

2.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.

2.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.

2.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.

2.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.

2.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.

2.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.

2.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.

2.m Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

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

2.o OAC rule 3745-21-09(L) is not applicable because this tank does not store petroleum liquids as defined in OAC rule 3745-21-01 (E)(13).

B. Operational Restrictions

1. The permittee shall not exceed an annual material throughput rate of 55,000,000 gallons.

2. The maximum true vapor pressure of organic liquid stored in this storage tank shall not exceed 0.754 pound per square inch absolute.

C. 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 the Ohio EPA, Northwest District Office (NWDO) specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).

(b) The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa or with physical properties that preclude determination by the recommended method is to be determined from available data and recorded if the estimated maximum true vapor pressure is greater than 3.5 kPa.

iii. For other liquids, the vapor pressure:

(a) May be obtained from standard reference texts, or

(b) Determined by ASTM Method D2879-83 (incorporated by reference--see Sec. 60.17); or

(c) Measured by an appropriate method approved by the OEPA, NWDO; or

(d) Calculated by an appropriate method approved by the OEPA, 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 D.3. Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will

be repaired or the vessel will be emptied as soon as possible.

4. For vessels equipped with a double-seal system as specified in A.2.f.ii.:

   a. visually inspect the vessel as specified in C.5. at least every 5 years; or

   b. visually inspect the vessel as specified in C.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 C.3 and C.4.b and at intervals no greater than 5 years in the case of vessels specified in C.4.a.

6. The owner or operator shall keep copies of all reports and records required in D.2, D.3, and D.4, for at least 2 years.

7. Keep a record of each inspection performed as required by C.2, C.3, C.4, and C.5. Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

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

9. The owner or operator shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel (shall be kept for the life of the source).

10. The permittee shall maintain monthly records of the amount of (gallons per month and total gallons, to date for the calendar year) of material throughput for this emissions unit.

D. Reporting Requirements

1. Notify the OEPA, NWDO in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by C.2 and C.5 to afford the OEPA, NWDO the opportunity to have an observer present. If the inspection required by C.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 the OEPA, NWDO at least 7 days prior to the refilling.

2. Furnish the OEPA, NWDO with a report that describes the control equipment and certifies that the control equipment meets the specifications of A.2.e through A.2.m and C.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.

3. If any of the conditions described in C.3 are detected during the annual visual inspection required by C.3, a report shall be furnished to the OEPA, NWDO within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.

4. After each inspection required by C.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 C.4.b, a report shall be furnished to the OEPA, NWDO within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of A.2.e through A.2.m or C.4 and list each repair made.

5. If the permittee placed, stored, or held in this emissions unit any petroleum liquid with a true vapor pressure which was greater than 0.754 pounds per square inch absolute, the permittee shall notify the Ohio EPA NWDO within 30 days of becoming aware of the occurrence.

6. The permittee shall submit annual deviation (excursion) reports that identify any and all exceedances of the annual material throughput limitation, as well as the corrective actions taken to achieve compliance. If no deviations occurred during a calendar year, the permittee shall submit an annual report which states that no deviations occurred during that year. These reports shall be submitted by January 31 of each year.

E. Testing Requirements

1. Compliance with the emission limitations in section A.1. of the terms and conditions of this permit shall be determined in accordance with the following methods:

   Emission Limitation: 0.3 tons OC/yr

   Applicable Compliance Method: The permittee shall demonstrate compliance by rim seal loss, withdraw loss and deck fitting loss calculations as determined by U.S. EPA Tanks 4.0 program with a maximum annual material throughput of 55,000,000 gallons.

F. Miscellaneous Requirements

None