State of Ohio Environmental Protection Agency

RE: FINAL PERMIT TO INSTALL MODIFICATION **CERTIFIED MAIL**
COSHOCTON COUNTY

Street Address:
122 S. Front Street

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

Mailing Address:
Lazarus Gov. Center
P.O. Box 1049

Application No: 06-07704
Fac ID: 0616010087
DATE: 5/18/2006

Coshocton Ethanol LLC
Russ Zeeck
200 N Burlington Ave.
Hastings, NE 68901-5058

Enclosed Please find a modification to the Ohio EPA Permit To Install referenced above which will modify the terms and conditions.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
309 South Fourth Street, Room 222
Columbus, Ohio 43215

Sincerely,

Michael W. Ahern

Michael W. Ahern, Manager
Permit Issuance and Data Management Section
Division of Air Pollution Control

CC: **USEPA** **SEDO**

STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

Permit To Install **Issue Date: 5/18/2006**
Terms and Conditions **Effective Date: 5/18/2006**

FINAL ADMINISTRATIVE MODIFICATION OF PERMIT TO INSTALL 06-07704

Application Number:	06-07704
Facility ID:	0616010087
Permit Fee:	**$0**
Name of Facility:	Coshocton Ethanol LLC
Person to Contact:	Russ Zeeck
Address:	200 N Burlington Ave. Hastings, NE 68901-5058

Location of proposed air contaminant source(s) [emissions unit(s)]:
County Road 271
Coshocton, **Ohio**

Description of proposed emissions unit(s):
Administrative modification of PTI 06-07704 issued August 12, 2005, to include additional monitoring and record keeping.

The above named entity is hereby granted a modification to the permit to install described above pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this modification 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 source(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 included in the application, the above described source(s) of pollutants will be granted the necessary operating permits.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Joseph P. Koncelik

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

This facility is permitted to operate each source described by this Permit to Install for a period of up to one year from the date the source commenced operation. This 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 emissions unit(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

Coshocton Ethanol LLC **Facility ID: 061601008**
PTI Application: 06-07704
Modification Issued: 5/18/2006

PE (stack)	31.4
PE (fugitive)	23.1
PM_{10}	33.6
SO_2	1.0
NO_x	70.3
CO	96.5
VOC	75.2
Acetaldehyde	9.2

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
B001 - 75 MMBTU/hr Natural Gas-Fired Boiler	OAC rule 3745-31-05(A)(3)
	OAC rule 3745-17-07(A)(1) OAC rule 3745-17-10(B)(1) 40 CFR Part 60, Subpart Dc
	OAC rule 3745-18-06
	OAC rule 3745-21-08(B)
	OAC rule 3745-23-06(B)
	OAC rule 3745-31-05(C)

Applicable Emissions Limitations/Control Measures	
	the requirements of OAC rules 3745-21-08(B), 3745-23-06(B) and 3745-31-05(C).
Nitrogen oxides (NO_x) emissions shall not exceed 0.045 lb/MMBTU actual heat input, 3.38 lbs/hr, and 13.77 tons/yr.	The emission limitations specified by these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
Carbon monoxide (CO) emissions shall not exceed 0.070 lb/MMBTU actual heat input and 5.25 lbs/hr.	See Section A.2.a.
Particulate emissions (PE) shall not exceed 0.14 lb/hr and 0.58 ton/yr.	See Section A.2.b.
Emissions of particulate matter less than 10 microns in diameter (PM_{10}) shall not exceed 0.56 lb/hr and 2.29 tons/yr.	See Section A.2.c.
Sulfur dioxide (SO_2) emissions shall not exceed 0.05 lb/hr and 0.18 ton/yr.	CO emissions shall not exceed 21.42 tons per rolling, 12-month period.
Volatile organic compound (VOC) emissions shall not exceed 0.41 lb/hr and 1.65 tons/yr.	
Visible particulate emissions from the boiler stack shall not exceed 10% opacity as a six-minute average.	
The requirements of this rule also include compliance with	

2. Additional Terms and Conditions

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

2.b 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.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

2.c 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.

On February 14, 2005, OAC rule 3745-23-06 was rescinded; therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the U.S. EPA approves the revision, the requirement to satisfy the "latest available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

B. Operational Restrictions

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

2. The maximum annual natural gas usage for this emissions unit shall not exceed 600 million standard cubic feet, based upon a rolling, 12-month summation of the monthly natural gas usage.

To ensure enforceability during the first 12 calendar months following the start-up of the emissions unit, the permittee shall not exceed the monthly cumulative natural gas

usage limitations specified in the following table:

Months	Maximum Allowable Cumulative Natural Gas Usage (million standard cubic feet)
1	200
1-2	400
1-3	600
1-4	600
1-5	600
1-6	600
1-7	600
1-8	600
1-9	600
1-10	600
1-11	600
1-12	600

After the first 12 calendar months of operation, compliance with the maximum annual natural gas usage limitation shall be based upon a rolling, 12-month summation of monthly natural gas usage.

C. Monitoring and/or Recordkeeping Requirements

1. Pursuant to 40 CFR Part 60, Subpart Dc, the permittee shall record and maintain records of the amount of natural gas combusted during each day. These records shall be maintained by the permittee for a period of two years following the date of such record.

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

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

   a. the natural gas usage, in standard cubic feet;

   b. during the first 12 calendar months of operation, the cumulative natural gas usage, in million standard cubic feet;

c. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of monthly natural gas usage, in million standard cubic feet;

d. the monthly fuel heat input, in MMBTU;

e. the monthly CO emissions, in tons (calculated by multiplying the CO emission factor, in lb CO/MMBTU, established during the most recent emission test performed on emissions unit B001, B002, or B003, by the monthly fuel heat input, in MMBTU, from C.3.d. above and by 0.0005 ton/lb); and

f. beginning after the first 12 calendar months of operation, records of the rolling, 12-month summation of the monthly CO emissions, in tons.

4. The permittee shall maintain annual records of the fuel heat input for the calendar year, in MMBTU.

5. The permit to install for this emissions unit [B001] was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA-approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: hexane
TLV (ug/m3): 176,237
Maximum Hourly Emission Rate (lbs/hr): 0.43*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 10
MAGLC (ug/m3): 4,196

Pollutant: butane
TLV (ug/m3): 1,901,677
Maximum Hourly Emission Rate (lbs/hr): 0.50*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 12
MAGLC (ug/m3): 45,278

Pollutant: pentane

TLV (ug/m3): 1,770,552
Maximum Hourly Emission Rate (lbs/hr): 0.62*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 15
MAGLC (ug/m3): 42,156

Pollutant: propane
TLV (ug/m3): 4,508,180
Maximum Hourly Emission Rate (lbs/hr): 0.38*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 9
MAGLC (ug/m3): 107,337

* Modeled for emissions units B001, B002, and B003, combined.

6. Physical changes to or changes in the method of operation of the emissions unit after its 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 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 or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs, Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices";

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

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

7. 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 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, 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 the 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 the emissions unit. These reports shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit deviation (excursion) reports that identify each day during which records were not maintained on the amount of natural gas combusted in the emissions unit. These reports shall be submitted within 30 days after the deviation occurs.

3. Pursuant to the NSPS, the source owner/operator is hereby advised of the requirement to report the following at the appropriate times:

   a. construction date (no later than 30 days after such date);

   b. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);

   c. actual start-up date (within 15 days after such date); and

d. date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Compliance Monitoring Unit
P. O. Box 163669
Columbus, Ohio 43216-3669

and

Southeast District Office of the Ohio EPA
Division of Air Pollution Control
2195 Front Street
Logan, Ohio 43138.

4. During the first 12 calendar months of operation, the permittee shall submit deviation (excursion) reports that identify all exceedances of the maximum allowable cumulative natural gas usage limitation. After the first 12 calendar months of operation, the permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month natural gas usage limitation and/or the rolling, 12-month emission limitation for CO. These reports shall be submitted within 30 days after the exceedance occurs.

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. Emission Limitations:

      NO_x emissions shall not exceed 0.045 lb/MMBTU actual heat input, 3.38 lbs/hr, and 13.77 tons/yr.

      Applicable Compliance Methods:

      Compliance with the hourly emission limitation may be demonstrated by multiplying the vendor-supplied emission factor of 0.045 lb NO_x /MMBTU by the maximum fuel heat input rate of 75 MMBTU/hr. Compliance shall be verified through emission testing performed in accordance with Section E.2.

      Compliance with the annual emission limitation shall be demonstrated by multiplying the NO_x emission factor, in lb NO_x/MMBTU, established during the most recent emission test performed on emissions unit B001, B002, or B003, by the annual fuel heat input, in MMBTU, recorded in accordance with Section C.4. above and by 0.0005 ton/lb.

   b. Emission Limitations:

Emissions Unit ID: **B001**

CO emissions shall not exceed 0.070 lb/MMBTU actual heat input, 5.25 lbs/hr, and 21.42 tons per rolling, 12-month period.

Applicable Compliance Methods:

Compliance with the hourly emission limitation may be demonstrated by multiplying the vendor-supplied emission factor of 0.070 lb CO/MMBTU by the maximum fuel heat input rate of 75 MMBTU/hr. Compliance shall be verified through emission testing performed in accordance with Section E.2.

Compliance with the rolling, 12-month emission limitation shall be demonstrated based upon the records required pursuant to Section C.3.f.

c. Emission Limitations:

PE shall not exceed 0.14 lb/hr and 0.58 ton/yr.

Applicable Compliance Methods:

Compliance with the hourly emission limitation may be demonstrated by multiplying the emission factor of 0.001863 lb PE/MMBTU (from AP-42, Table 1.4-2, July 1998) by the maximum fuel heat input rate of 75 MMBTU/hr.

If required, compliance with the hourly emission limitation shall be determined according to test Methods 1 - 5, as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

Compliance with the annual emission limitation shall be demonstrated by multiplying the emission factor of 0.001863 lb PE/MMBTU by the annual fuel heat input, in MMBTU, recorded in accordance with Section C.4. above and by 0.0005 ton/lb.

d. Emission Limitations:

PM_{10} emissions shall not exceed 0.56 lb/hr and 2.29 tons/yr.

Applicable Compliance Methods:

Compliance with the hourly emission limitation may be demonstrated by multiplying the emission factor of 0.007451 lb PM_{10}/MMBTU (from AP-42, Table 1.4-2, July 1998) by the maximum fuel heat input rate of 75 MMBTU/hr.

If required, compliance with the hourly emission limitation shall be determined according to test Methods 1 - 4, as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources", and test Methods 201 and 202 as set forth in the most recent update of 40 CFR Part 51, Appendix M.

Compliance with the annual emission limitation shall be demonstrated by multiplying the emission factor of 0.007451 lb PM_{10}/MMBTU by the annual fuel heat input, in MMBTU, recorded in accordance with Section C.4. above and by 0.0005 ton/lb.

e. Emission Limitations:

SO_2 emissions shall not exceed 0.05 lb/hr and 0.18 ton/yr.

Applicable Compliance Methods:

Compliance with the hourly emission limitation may be demonstrated by multiplying the emission factor of 0.000588 lb SO_2/MMBTU (from AP-42, Table 1.4-2, July 1998) by the maximum fuel heat input rate of 75 MMBTU/hr.

If required, compliance with the hourly emission limitation shall be determined according to test Methods 1 - 4, and 6 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

Compliance with the annual emission limitation shall be demonstrated by multiplying the emission factor of 0.000588 lb SO_2/MMBTU by the annual fuel heat input, in MMBTU, recorded in accordance with Section C.4. above and by 0.0005 ton/lb.

f. Emission Limitations:

VOC emissions shall not exceed 0.41 lb/hr and 1.65 tons/yr.

Applicable Compliance Methods:

Compliance with the hourly emission limitation may be demonstrated by multiplying the emission factor of 0.005392 lb VOC/MMBTU (from AP-42, Table 1.4-2, July 1998) by the maximum fuel heat input rate of 75 MMBTU/hr.

If required, compliance with the hourly emission limitation shall be determined according to test Methods 1 - 4, and 25 or 25a, as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

Compliance with the annual emission limitation shall be demonstrated by multiplying the emission factor of 0.005392 lb VOC/MMBTU by the annual fuel heat input, in MMBTU, recorded in accordance with Section C.4. above and by 0.0005 ton/lb.

g. Emission Limitation:

Visible particulate emissions from the boiler stack shall not exceed 10% opacity

as a six-minute average.

Compliance Method:

If required, compliance shall be determined according to test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

2. The permittee shall conduct, or have conducted, emission testing on at least one of the following emissions units: B001, B002, or B003, 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 start-up of the first boiler.

   b. The emission testing shall be conducted to demonstrate compliance with the lb/MMBTU and lbs/hr limitations for NO_x and CO.

   c. The following test method(s) shall be employed to demonstrate compliance with the above emission limitations: for NO_x, Methods 1 through 4 and 7 of 40 CFR Part 60, Appendix A; and for CO, Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

   d. The testing shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

   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, Southeast District Office. 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, Southeast District Office refusal to accept the results of the emission test(s).

   f. Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and

information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

g. A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office 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, Southeast District Office.

h. The testing required by this section (E.2.) shall be repeated every 5 years after the initial test, with the boiler tested being rotated with each test.

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
B002 - 75 MMBTU/hr Natural Gas-Fired Boiler	OAC rule 3745-31-05(A)(3)

	Applicable Emissions <u>Limitations/Control Measures</u>	requirements of OAC rules 3745-21-08(B), 3745-23-06(B) and 3745-31-05(C).
	Nitrogen oxides (NO_x) emissions shall not exceed 0.045 lb/MMBTU actual heat input, 3.38 lbs/hr, and 13.77 tons/yr.	The emission limitations specified by these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
	Carbon monoxide (CO) emissions shall not exceed 0.070 lb/MMBTU actual heat input and 5.25 lbs/hr.	See Section A.2.a.
	Particulate emissions (PE) shall not exceed 0.14 lb/hr and 0.58 ton/yr.	See Section A.2.b.
OAC rule 3745-17-07(A)(1) OAC rule 3745-17-10(B)(1) 40 CFR Part 60, Subpart Dc	Emissions of particulate matter less than 10 microns in diameter (PM_{10}) shall not exceed 0.56 lb/hr and 2.29 tons/yr.	See Section A.2.c. CO emissions shall not exceed 21.42 tons per rolling, 12-month period.
OAC rule 3745-18-06 OAC rule 3745-21-08(B) OAC rule 3745-23-06(B) OAC rule 3745-31-05(C)	Sulfur dioxide (SO_2) emissions shall not exceed 0.05 lb/hr and 0.18 ton/yr.	
	Volatile organic compound (VOC) emissions shall not exceed 0.41 lb/hr and 1.65 tons/yr.	
	Visible particulate emissions from the boiler stack shall not exceed 10% opacity as a six-minute average.	
	The requirements of this rule also include compliance with the	

Emissions Unit ID: **B002**

2. Additional Terms and Conditions

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

2.b 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.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

2.c 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.

On February 14, 2005, OAC rule 3745-23-06 was rescinded; therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the U.S. EPA approves the revision, the requirement to satisfy the "latest available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

B. Operational Restrictions

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

2. The maximum annual natural gas usage for this emissions unit shall not exceed 600 million standard cubic feet, based upon a rolling, 12-month summation of the monthly natural gas usage.

   To ensure enforceability during the first 12 calendar months following the start-up of the emissions unit, the permittee shall not exceed the monthly cumulative natural gas usage limitations specified in the following table:

Months	Maximum Allowable Cumulative Natural Gas Usage (million standard cubic feet)
1	200
1-2	400
1-3	600
1-4	600
1-5	600
1-6	600
1-7	600
1-8	600
1-9	600
1-10	600
1-11	600
1-12	600

After the first 12 calendar months of operation, compliance with the maximum annual natural gas usage limitation shall be based upon a rolling, 12-month summation of monthly natural gas usage.

C. Monitoring and/or Recordkeeping Requirements

1. Pursuant to 40 CFR Part 60, Subpart Dc, the permittee shall record and maintain records of the amount of natural gas combusted during each day. These records shall be maintained by the permittee for a period of two years following the date of such record.

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

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

   a. the natural gas usage, in standard cubic feet;

   b. during the first 12 calendar months of operation, the cumulative natural gas usage, in million standard cubic feet;

   c. beginning after the first 12 calendar months of operation, the rolling, 12-month

summation of monthly natural gas usage, in million standard cubic feet;

d. the monthly fuel heat input, in MMBTU;

e. the monthly CO emissions, in tons (calculated by multiplying the CO emission factor, in lb CO/MMBTU, established during the most recent emission test performed on emissions unit B001, B002, or B003, by the monthly fuel heat input, in MMBTU, from C.3.d. above and by 0.0005 ton/lb); and

f. beginning after the first 12 calendar months of operation, records of the rolling, 12-month summation of the monthly CO emissions, in tons.

4. The permittee shall maintain annual records of the fuel heat input for the calendar year, in MMBTU.

5. The permit to install for this emissions unit [B002] was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA-approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: hexane
TLV (ug/m3): 176,237
Maximum Hourly Emission Rate (lbs/hr): 0.43*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 10
MAGLC (ug/m3): 4,196

Pollutant: butane
TLV (ug/m3): 1,901,677
Maximum Hourly Emission Rate (lbs/hr): 0.50*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 12
MAGLC (ug/m3): 45,278

Pollutant: pentane
TLV (ug/m3): 1,770,552

Maximum Hourly Emission Rate (lbs/hr): 0.62*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 15
MAGLC (ug/m3): 42,156

Pollutant: propane
TLV (ug/m3): 4,508,180
Maximum Hourly Emission Rate (lbs/hr): 0.38*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 9
MAGLC (ug/m3): 107,337

* Modeled for emissions units B001, B002, and B003, combined.

6. Physical changes to or changes in the method of operation of the emissions unit after its 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 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 or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs, Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices";

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

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

7. 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 solely due to the emissions of any type of toxic air contaminant

not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, 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 the 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 the emissions unit. These reports shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit deviation (excursion) reports that identify each day during which records were not maintained on the amount of natural gas combusted in the emissions unit. These reports shall be submitted within 30 days after the deviation occurs.

3. Pursuant to the NSPS, the source owner/operator is hereby advised of the requirement to report the following at the appropriate times:

   a. construction date (no later than 30 days after such date);

   b. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);

   c. actual start-up date (within 15 days after such date); and

d. date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Compliance Monitoring Unit
P. O. Box 163669
Columbus, Ohio 43216-3669

and

Southeast District Office of the Ohio EPA
Division of Air Pollution Control
2195 Front Street
Logan, Ohio 43138.

4. During the first 12 calendar months of operation, the permittee shall submit deviation (excursion) reports that identify all exceedances of the maximum allowable cumulative natural gas usage limitation. After the first 12 calendar months of operation, the permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month natural gas usage limitation and/or the rolling, 12-month emission limitation for CO. These reports shall be submitted within 30 days after the exceedance occurs.

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. Emission Limitations:

NO_x emissions shall not exceed 0.045 lb/MMBTU actual heat input, 3.38 lbs/hr, and 13.77 tons/yr.

Applicable Compliance Methods:

Compliance with the hourly emission limitation may be demonstrated by multiplying the vendor-supplied emission factor of 0.045 lb NO_x /MMBTU by the maximum fuel heat input rate of 75 MMBTU/hr. Compliance shall be verified through emission testing performed in accordance with Section E.2.

Compliance with the annual emission limitation shall be demonstrated by multiplying the NO_x emission factor, in lb NO_x/MMBTU, established during the most recent emission test performed on emissions unit B001, B002, or B003, by the annual fuel heat input, in MMBTU, recorded in accordance with Section C.4. above and by 0.0005 ton/lb.

b. Emission Limitations:

CO emissions shall not exceed 0.070 lb/MMBTU actual heat input, 5.25 lbs/hr, and 21.42 tons per rolling, 12-month period.

Applicable Compliance Methods:

Compliance with the hourly emission limitation may be demonstrated by multiplying the vendor-supplied emission factor of 0.070 lb CO/MMBTU by the maximum fuel heat input rate of 75 MMBTU/hr. Compliance shall be verified through emission testing performed in accordance with Section E.2.

Compliance with the rolling, 12-month emission limitation shall be demonstrated based upon the records required pursuant to Section C.3.f.

c. Emission Limitations:

PE shall not exceed 0.14 lb/hr and 0.58 ton/yr.

Applicable Compliance Methods:

Compliance with the hourly emission limitation may be demonstrated by multiplying the emission factor of 0.001863 lb PE/MMBTU (from AP-42, Table 1.4-2, July 1998) by the maximum fuel heat input rate of 75 MMBTU/hr.

If required, compliance with the hourly emission limitation shall be determined according to test Methods 1 - 5, as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

Compliance with the annual emission limitation shall be demonstrated by multiplying the emission factor of 0.001863 lb PE/MMBTU by the annual fuel heat input, in MMBTU, recorded in accordance with Section C.4. above and by 0.0005 ton/lb.

d. Emission Limitations:

PM_{10} emissions shall not exceed 0.56 lb/hr and 2.29 tons/yr.

Compliance with the hourly emission limitation may be demonstrated by multiplying the emission factor of 0.007451 lb PM_{10}/MMBTU (from AP-42, Table 1.4-2, July 1998) by the maximum fuel heat input rate of 75 MMBTU/hr.

If required, compliance with the hourly emission limitation shall be determined according to test Methods 1 - 4, as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources", and test Methods 201 and 202 as set forth in the most recent update of 40 CFR Part 51, Appendix M.

Compliance with the annual emission limitation shall be demonstrated by multiplying the emission factor of 0.007451 lb PM_{10}/MMBTU by the annual fuel heat input, in MMBTU, recorded in accordance with Section C.4. above and by 0.0005 ton/lb.

e. Emission Limitations:

SO_2 emissions shall not exceed 0.05 lb/hr and 0.18 ton/yr.

Applicable Compliance Methods:

Compliance with the hourly emission limitation may be demonstrated by multiplying the emission factor of 0.000588 lb SO_2/MMBTU (from AP-42, Table 1.4-2, July 1998) by the maximum fuel heat input rate of 75 MMBTU/hr.

If required, compliance with the hourly emission limitation shall be determined according to test Methods 1 - 4, and 6 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

Compliance with the annual emission limitation shall be demonstrated by multiplying the emission factor of 0.000588 lb SO_2/MMBTU by the annual fuel heat input, in MMBTU, recorded in accordance with Section C.4. above and by 0.0005 ton/lb.

f. Emission Limitations:

VOC emissions shall not exceed 0.41 lb/hr and 1.65 tons/yr.

Applicable Compliance Methods:

Compliance with the hourly emission limitation may be demonstrated by multiplying the emission factor of 0.005392 lb VOC/MMBTU (from AP-42, Table 1.4-2, July 1998) by the maximum fuel heat input rate of 75 MMBTU/hr.

If required, compliance with the hourly emission limitation shall be determined according to test Methods 1 - 4, and 25 or 25a, as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

Compliance with the annual emission limitation shall be demonstrated by multiplying the emission factor of 0.005392 lb VOC/MMBTU by the annual fuel heat input, in MMBTU, recorded in accordance with Section C.4. above and by 0.0005 ton/lb.

g. Emission Limitations:

Visible particulate emissions from the boiler stack shall not exceed 10% opacity as a six-minute average.

Applicable Compliance Methods:

If required, compliance shall be determined according to test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

2. The permittee shall conduct, or have conducted, emission testing on at least one of the following emissions units: B001, B002, or B003, 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 start-up of the first boiler.

b. The emission testing shall be conducted to demonstrate compliance with the lb/MMBTU and lbs/hr limitations for NO_x and CO.

c. The following test method(s) shall be employed to demonstrate compliance with the above emission limitations: for NO_x, Methods 1 through 4 and 7 of 40 CFR Part 60, Appendix A; and for CO, Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The testing shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

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, Southeast District Office. 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, Southeast District Office refusal to accept the results of the emission test(s).

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

g. A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office 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, Southeast District Office.

h. The testing required by this section (E.2.) shall be repeated every 5 years after the initial test, with the boiler tested being rotated with each test.

F. Miscellaneous Requirements

Emissions Unit ID: **B002**

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	
B003 - 75 MMBTU/hr Natural Gas-Fired Boiler	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07(A)(1) OAC rule 3745-17-10(B)(1) 40 CFR Part 60, Subpart Dc
		OAC rule 3745-18-06
		OAC rule 3745-21-08(B)
		OAC rule 3745-23-06(B)
		OAC rule 3745-31-05(C)

Applicable Emissions Limitations/Control Measures	
Nitrogen oxides (NO_x) emissions shall not exceed 0.045 lb/MMBTU actual heat input, 3.38 lbs/hr, and 13.77 tons/yr.	also include compliance with the requirements of OAC rules 3745-21-08(B), 3745-23-06(B) and 3745-31-05(C).
Carbon monoxide (CO) emissions shall not exceed 0.070 lb/MMBTU actual heat input and 5.25 lbs/hr.	The emission limitations specified by these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
Particulate emissions (PE) shall not exceed 0.14 lb/hr and 0.58 ton/yr.	See Section A.2.a.
Emissions of particulate matter less than 10 microns in diameter (PM_{10}) shall not exceed 0.56 lb/hr and 2.29 tons/yr.	See Section A.2.b.
Sulfur dioxide (SO_2) emissions shall not exceed 0.05 lb/hr and 0.18 ton/yr.	See Section A.2.c.
Volatile organic compound (VOC) emissions shall not exceed 0.41 lb/hr and 1.65 tons/yr.	CO emissions shall not exceed 21.42 tons per rolling, 12-month period.
Visible particulate emissions from the boiler stack shall not exceed 10% opacity as a six-minute average.	
The requirements of this rule	

2. Additional Terms and Conditions

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

2.b 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.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

2.c 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.

On February 14, 2005, OAC rule 3745-23-06 was rescinded; therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the U.S. EPA approves the revision, the requirement to satisfy the "latest available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

B. Operational Restrictions

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

2. The maximum annual natural gas usage for this emissions unit shall not exceed 600 million standard cubic feet, based upon a rolling, 12-month summation of the monthly natural gas usage.

To ensure enforceability during the first 12 calendar months following the start-up of the emissions unit, the permittee shall not exceed the monthly cumulative natural gas

usage limitations specified in the following table:

Months	Maximum Allowable Cumulative Natural Gas Usage (million standard cubic feet)
1	200
1-2	400
1-3	600
1-4	600
1-5	600
1-6	600
1-7	600
1-8	600
1-9	600
1-10	600
1-11	600
1-12	600

After the first 12 calendar months of operation, compliance with the maximum annual natural gas usage limitation shall be based upon a rolling, 12-month summation of monthly natural gas usage.

C. Monitoring and/or Recordkeeping Requirements

1. Pursuant to 40 CFR Part 60, Subpart Dc, the permittee shall record and maintain records of the amount of natural gas combusted during each day. These records shall be maintained by the permittee for a period of two years following the date of such record.

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

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

   a. the natural gas usage, in standard cubic feet;

   b. during the first 12 calendar months of operation, the cumulative natural gas usage, in million standard cubic feet;

   c. beginning after the first 12 calendar months of operation, the rolling, 12-month

summation of monthly natural gas usage, in million standard cubic feet;

d. the monthly fuel heat input, in MMBTU;

e. the monthly CO emissions, in tons (calculated by multiplying the CO emission factor, in lb CO/MMBTU, established during the most recent emission test performed on emissions unit B001, B002, or B003, by the monthly fuel heat input, in MMBTU, from C.3.d. above and by 0.0005 ton/lb); and

f. beginning after the first 12 calendar months of operation, records of the rolling, 12-month summation of the monthly CO emissions, in tons.

4. The permittee shall maintain annual records of the fuel heat input for the calendar year, in MMBTU.

5. The permit to install for this emissions unit [B003] was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA-approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: hexane
TLV (ug/m3): 176,237
Maximum Hourly Emission Rate (lbs/hr): 0.43*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 10
MAGLC (ug/m3): 4,196

Pollutant: butane
TLV (ug/m3): 1,901,677
Maximum Hourly Emission Rate (lbs/hr): 0.50*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 12
MAGLC (ug/m3): 45,278

Pollutant: pentane

TLV (ug/m3): 1,770,552
Maximum Hourly Emission Rate (lbs/hr): 0.62*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 15
MAGLC (ug/m3): 42,156

Pollutant: propane
TLV (ug/m3): 4,508,180
Maximum Hourly Emission Rate (lbs/hr): 0.38*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 9
MAGLC (ug/m3): 107,337

* Modeled for emissions units B001, B002, and B003, combined.

6. Physical changes to or changes in the method of operation of the emissions unit after its 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 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 or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs, Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices";

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

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

7. 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 solely due to the emissions of any type of toxic air contaminant

not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, 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 the 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 the emissions unit. These reports shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit deviation (excursion) reports that identify each day during which records were not maintained on the amount of natural gas combusted in the emissions unit. These reports shall be submitted within 30 days after the deviation occurs.

3. Pursuant to the NSPS, the source owner/operator is hereby advised of the requirement to report the following at the appropriate times:

a. construction date (no later than 30 days after such date);

b. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);

actual start-up date (within 15 days after such date); and

d. date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Compliance Monitoring Unit
P. O. Box 163669
Columbus, Ohio 43216-3669

and

Southeast District Office of the Ohio EPA
Division of Air Pollution Control
2195 Front Street
Logan, Ohio 43138.

4. During the first 12 calendar months of operation, the permittee shall submit deviation (excursion) reports that identify all exceedances of the maximum allowable cumulative natural gas usage limitation. After the first 12 calendar months of operation, the permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month natural gas usage limitation and/or the rolling, 12-month emission limitation for CO. These reports shall be submitted within 30 days after the exceedance occurs.

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. Emission Limitations:

NO_x emissions shall not exceed 0.045 lb/MMBTU actual heat input, 3.38 lbs/hr, and 13.77 tons/yr.

Applicable Compliance Methods:

Compliance with the hourly emission limitation may be demonstrated by multiplying the vendor-supplied emission factor of 0.045 lb NO_x /MMBTU by the maximum fuel heat input rate of 75 MMBTU/hr. Compliance shall be verified through emission testing performed in accordance with Section E.2.

Compliance with the annual emission limitation shall be demonstrated by multiplying the NO_x emission factor, in lb NO_x/MMBTU, established during the most recent emission test performed on emissions unit B001, B002, or B003, by the annual fuel heat input, in MMBTU, recorded in accordance with Section C.4. above and by 0.0005 ton/lb.

b. Emission Limitations:

CO emissions shall not exceed 0.070 lb/MMBTU actual heat input, 5.25 lbs/hr, and 21.42 tons per rolling, 12-month period.

Applicable Compliance Methods:

Compliance with the hourly emission limitation may be demonstrated by multiplying the vendor-supplied emission factor of 0.070 lb CO/MMBTU by the maximum fuel heat input rate of 75 MMBTU/hr. Compliance shall be verified through emission testing performed in accordance with Section E.2.

Compliance with the rolling, 12-month emission limitation shall be demonstrated based upon the records required pursuant to Section C.3.f.

c. Emission Limitations:

PE shall not exceed 0.14 lb/hr and 0.58 ton/yr.

Applicable Compliance Methods:

Compliance with the hourly emission limitation may be demonstrated by multiplying the emission factor of 0.001863 lb PE/MMBTU (from AP-42, Table 1.4-2, July 1998) by the maximum fuel heat input rate of 75 MMBTU/hr.

If required, compliance with the hourly emission limitation shall be determined according to test Methods 1 - 5, as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

Compliance with the annual emission limitation shall be demonstrated by multiplying the emission factor of 0.001863 lb PE/MMBTU by the annual fuel heat input, in MMBTU, recorded in accordance with Section C.4. above and by 0.0005 ton/lb.

d. Emission Limitations:

PM_{10} emissions shall not exceed 0.56 lb/hr and 2.29 tons/yr.

Applicable Compliance Methods:

Compliance with the hourly emission limitation may be demonstrated by multiplying the emission factor of 0.007451 lb PM_{10}/MMBTU (from AP-42, Table 1.4-2, July 1998) by the maximum fuel heat input rate of 75 MMBTU/hr.

If required, compliance with the hourly emission limitation shall be determined according to test Methods 1 - 4, as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources", and test Methods 201 and 202 as set forth in the most recent update of 40 CFR Part 51, Appendix M.

Compliance with the annual emission limitation shall be demonstrated by multiplying the emission factor of 0.007451 lb PM_{10}/MMBTU by the annual fuel heat input, in MMBTU, recorded in accordance with Section C.4. above and by 0.0005 ton/lb.

e. Emission Limitations:

SO_2 emissions shall not exceed 0.05 lb/hr and 0.18 ton/yr.

Applicable Compliance Methods:

Compliance with the hourly emission limitation may be demonstrated by multiplying the emission factor of 0.000588 lb SO_2/MMBTU (from AP-42, Table 1.4-2, July 1998) by the maximum fuel heat input rate of 75 MMBTU/hr.

If required, compliance with the hourly emission limitation shall be determined according to test Methods 1 - 4, and 6 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

Compliance with the annual emission limitation shall be demonstrated by multiplying the emission factor of 0.000588 lb SO_2/MMBTU by the annual fuel heat input, in MMBTU, recorded in accordance with Section C.4. above and by

0.0005 ton/lb.

f. Emission Limitations:

VOC emissions shall not exceed 0.41 lb/hr and 1.65 tons/yr.

Applicable Compliance Methods:

Compliance with the hourly emission limitation may be demonstrated by multiplying the emission factor of 0.005392 lb VOC/MMBTU (from AP-42, Table 1.4-2, July 1998) by the maximum fuel heat input rate of 75 MMBTU/hr.

If required, compliance with the hourly emission limitation shall be determined according to test Methods 1 - 4, and 25 or 25a, as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

Compliance with the annual emission limitation shall be demonstrated by multiplying the emission factor of 0.005392 lb VOC/MMBTU by the annual fuel heat input, in MMBTU, recorded in accordance with Section C.4. above and by 0.0005 ton/lb.

g. Emission Limitation:

Visible particulate emissions from the boiler stack shall not exceed 10% opacity as a six-minute average.

Compliance Method:

If required, compliance shall be determined according to test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

2. The permittee shall conduct, or have conducted, emission testing on at least one of the following emissions units: B001, B002, or B003, 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 start-up of the first boiler.

b. The emission testing shall be conducted to demonstrate compliance with the lb/MMBTU and lbs/hr limitations for NO_x and CO.

c. The following test method(s) shall be employed to demonstrate compliance with the above emission limitations: for NO_x, Methods 1 through 4 and 7 of 40 CFR Part 60, Appendix A; and for CO, Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The testing shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

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, Southeast District Office. 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, Southeast District Office refusal to accept the results of the emission test(s).

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

g. A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office 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, Southeast District Office.

h. The testing required by this section (E.2.) shall be repeated every 5 years after the initial test, with the boiler tested being rotated with each test.

F. Miscellaneous Requirements

Emissions Unit ID: **B003**

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
F001 - Paved Roadways and Parking Areas	OAC rule 3745-31-05(A)(3)	There shall be no visible particulate emissions except for one minute during any 60-minute period. Particulate emissions (PE) shall not exceed 15.32 tons/yr. Emissions of particulate matter less than 10 microns in diameter (PM_{10}) shall not exceed 2.99 tons/yr. The permittee shall implement best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.2.b through A.2.f).
	OAC rule 3745-17-07(B)	See Section A.2.g.
	OAC rule 3745-17-08(B)	See Section A.2.h

2. Additional Terms and Conditions

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

Paved Roadways:

All

Paved Parking Areas:

All

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

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

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

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

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

2.g 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.h This emissions unit is not located within an "Appendix A" area as identified in

OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B).

B. Operational Restrictions

None.

C. Monitoring and/or Recordkeeping Requirements

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

Paved Roadways	Minimum Inspection Frequency
All	Once Per Day

Paved Parking Areas	Minimum Inspection Frequency
All	Once Per Day

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

3. The permittee shall maintain records of the following information:

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

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

   c. the dates the control measures were implemented; and

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

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

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

D. Reporting Requirements

1. The permittee shall submit deviation 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.

2. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

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. Emission Limitation:

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

      Applicable Compliance Method:

      If required, visible particulate emissions shall be determined according to test Method 22 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 ("Standards of Performance for New Stationary Sources").

   b. Emission Limitation:

      PE shall not exceed 15.32 tons/yr.

      Applicable Compliance Method:

Compliance with the annual emission limitation may be demonstrated using calculations in AP-42, Section 13.2.1.3 (December 2003) and inputs representing the Potential To Emit (PTE), as follows:

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

Where

E = emission factor (lb/VMT)
k = particle size multiplier = 0.082
sL = silt content of road surface material, in g/m^2 = 0.4 (80% control applied)
W = mean vehicle weight, in tons = 28
C = emission factor for exhaust, brake wear and tire wear = 0.00047
P = number of wet days per averaging period with at least 0.01 inch of precipitation = 140
N = number of days per averaging period = 365

Using the equation and input values above:

E = 0.7422 lb PE/vehicle mile traveled (VMT)
Using the AP-42 emission factor and the maximum annual VMT:
PE = (0.7422 lb/VMT)(41,270 VMT/yr)(0.0005 ton/lb)
= 15.32 tons/yr

c. Emission Limitation:

PM_{10} emissions shall not exceed 2.99 tons/yr.

Applicable Compliance Method:

Compliance with the annual emission limitation may be demonstrated using calculations in AP-42, Section 13.2.1.3 (December 2003) and inputs representing the PTE, as follows:

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

Where

E = emission factor (lb/VMT)
k = particle size multiplier = 0.016 (PM_{10})
sL = silt content of road surface material, in g/m^2 = 0.4 (80% control applied)
W = mean vehicle weight, in tons = 28
C = emission factor for exhaust, brake wear and tire wear = 0.00047
P = number of wet days per averaging period with at least 0.01 inch of precipitation = 140
N = number of days per averaging period = 365

Using the equation and input values above:

E = 0.1445 lb PM_{10}/VMT

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

PM_{10} = (0.1445 lb/VMT)(41,270 VMT/yr)(0.0005 ton/lb)
= 2.99 tons/yr

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
J001 - Denatured Ethanol Loading Rack Controlled with a Flare	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions from the flare shall not exceed 11.25 lbs/hr and 5.91 tons/yr. Fugitive VOC emissions from loading operations shall not exceed 2.96 tons/yr. Nitrogen oxides (NO_x) emissions shall not exceed 5.78 lbs/hr and 3.04 tons/yr. Carbon monoxide (CO) emissions shall not exceed 0.98 lb/hr and 0.52 ton/yr. See Sections A.2.d through A.2.g. The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07(E).
	OAC rule 3745-21-07(E)	See Sections A.2.a through A.2.c.

2. Additional Terms and Conditions

2.a All emissions from the loading rack shall be collected and combusted in a flare with a minimum 98% design VOC control efficiency.

2.b During any transfer of material through the loading rack, the vapors displaced from the delivery vessel shall be collected and vented to the flare.

2.c A means shall be provided to prevent liquid drainage from the loading device when it is not in use or to accomplish complete drainage before the loading device is disconnected.

2.d The loading rack shall utilize top submerged filling or bottom filling for the transfer of materials.

2.e All material loading lines, unloading lines and vapor lines shall be equipped with fittings which are vapor tight.

2.f The annual allowable emission rate is based on the annual production of 75,000,000 gallons of 200 proof ethanol which is denatured (at 5%) with 3,750,000 gallons of gasoline (78,750,000 gallons total). Since the facility annual production rate is equivalent to the maximum capacity of emissions unit P003 (Fermentation and Beer Well), no operational restrictions, monitoring, recordkeeping or reporting requirements are necessary to ensure that this emissions unit does not exceed its annual allowable emission rates.

B. Operational Restrictions

1. A pilot flame shall be maintained at all times in the flare's pilot light burner.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall properly install, operate, and maintain a device to continuously monitor the pilot flame when the emissions unit is in operation. The monitoring device and any recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

   The permittee shall record the following information each day:

   a. all periods during which there was no pilot flame; and

b. the operating times for the flare, monitoring equipment, and the associated emissions unit.

2. The permittee shall maintain records of the monthly and (after the first 12 months of unit operation) rolling, 12-month denatured ethanol throughput for this emissions unit.

3. The permittee shall record each time loading occurs and document when submerged or bottom loading is used.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all periods during which the pilot flame was not functioning properly. The reports shall include the date, time, and duration of each such period.

2. The permittee shall submit deviation (excursion) reports that identify all exceedances of the following requirements for the vapor recovery system:

   a. periods of time when the recovery stream is diverted from the flare;

   b. all periods of time when the vapor control system was not operational, which shall include the date, time, and duration; and,

   c. all periods of time when the monitoring data required above was not collected.

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. Emission Limitations:

      VOC emissions from the flare shall not exceed 11.25 lbs/hr and 5.91 tons/yr.

      Applicable Compliance Methods:

      Compliance with the hourly emission limitation shall be demonstrated by multiplying the vendor-supplied emission factor of 0.15 lb VOC/1000 gal throughput by the maximum hourly denatured ethanol throughput rate of 75,000 gals/hr.

Compliance with the annual emission limitation shall be demonstrated by multiplying the vendor-supplied emission factor of 0.15 lb VOC/1000 gal throughput by the maximum annual denatured ethanol throughput of 78,750,000 gallons and by 0.0005 ton/lb.

b. Emission Limitation:

Fugitive VOC emissions from loading operations shall not exceed 2.96 tons/yr.

Applicable Compliance Method:

Compliance with the annual emission limitation shall be demonstrated by multiplying the vendor-supplied emission factor of 7.5 lbs VOC/1000 gal throughput by the maximum annual denatured ethanol throughput of 78,750,000 gallons and by 0.0005 ton/lb and by 0.01 (1% loading loss) .

c. Emission Limitations:

NO_x emissions shall not exceed 5.78 lbs/hr and 3.04 tons/yr.

Applicable Compliance Methods:

Compliance with the hourly emission limitation shall be demonstrated by multiplying the vendor-supplied emission factor of 0.077 lb NO_x/1000 gal throughput by the maximum hourly denatured ethanol throughput rate of 75,000 gals/hr.

Compliance with the annual emission limitation shall be demonstrated by multiplying the vendor-supplied emission factor of 0.077 lb NO_x/1000 gal throughput by the maximum annual denatured ethanol throughput of 78,750,000 gallons and by 0.0005 ton/lb.

d. Emission Limitations:

CO emissions shall not exceed 0.98 lb/hr and 0.52 ton/yr.

Applicable Compliance Methods:

Compliance with the hourly emission limitation shall be demonstrated by multiplying the vendor-supplied emission factor of 0.013 lb CO/1000 gal throughput by the maximum hourly denatured ethanol throughput rate of 75,000 gals/hr.

Compliance with the annual emission limitation shall be demonstrated by multiplying the vendor-supplied emission factor of 0.013 lb CO/1000 gal throughput by the maximum annual denatured ethanol throughput of 78,750,000 gallons and by 0.0005 ton/lb.

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 3745-17-07(A) OAC rule 3745-17-11(B)
P001 - Grain Hammermill 1 controlled with a Baghouse	OAC rule 3745-31-05(A)(3)	

Emissions Unit ID: **P001**

Applicable Emissions
Limitations/Control Measures

The baghouse shall achieve an outlet emission rate of not greater than 0.00525 grain of particulate emissions per dry standard cubic foot of exhaust gases.

The baghouse shall achieve an outlet emission rate of not greater than 0.00525 grain of particulate matter less than 10 microns in diameter (PM_{10}) per dry standard cubic foot of exhaust gases.

Visible particulate emissions from the baghouse stack shall not exceed 0% opacity as a 3-minute average.

Particulate emissions (PE) shall not exceed 1.19 tons/yr.

PM_{10} emissions shall not exceed 1.19 tons/yr.

See Sections A.2.a and A.2.b.

The emission limitations specified by these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

2.a The permittee shall employ best available control measures for the emissions unit for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to maintain enclosures and vent all the particulate emissions to a baghouse to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

2.b Implementation of the above-mentioned control measure(s) in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-31-05.

2.c The annual allowable emission rate is based on the annual production of 75,000,000 gallons of 200 proof ethanol which is denatured (at 5%) with 3,750,000 gallons of gasoline (78,750,000 gallons total). Since the facility annual production rate is equivalent to the maximum capacity of emissions unit P003 (Fermentation and Beer Well), no operational restrictions, monitoring, recordkeeping or reporting requirements are necessary to ensure that this emissions unit does not exceed its annual allowable emission rates.

B. Operational Restrictions

1. The permittee shall operate the baghouse at all times when this 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 baghouse stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log, as well as the date and time the daily check was performed. If visible emissions are observed, the permittee shall also note the following in the operations log:

   a. the color of the emissions;
   b. the total duration of any visible emission incident; and
   c. any corrective actions taken to eliminate the visible emissions.

D. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

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. Emission Limitation:

      The baghouse shall achieve an outlet emission rate of not greater than 0.00525 grain of particulate emissions per dry standard cubic foot of exhaust gases.

      Applicable Compliance Method:

      If required, compliance with the mass emission limitation shall be determined according to test Methods 1 - 5, as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

   b. Emission Limitation:

      The baghouse shall achieve an outlet emission rate of not greater than 0.00525 grain of PM_{10} per dry standard cubic foot of exhaust gases.

      Applicable Compliance Method:

      If required, compliance with the mass emission limitation shall be determined according to test Methods 1 - 4, as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources", and test Method 201 as set forth in the most recent update of 40 CFR Part 51, Appendix M.

   c. Emission Limitations:

Emissions Unit ID: **P001**

PE shall not exceed 1.19 tons/yr.
PM_{10} emissions shall not exceed 1.19 tons/yr.

Applicable Compliance Method:

Compliance with the annual emission limitations shall be demonstrated using the following calculation based on the baghouse design and maximum operating schedule.

= 0.00525 gr/dscf x 1 lb/7000 gr x 6000 cfm x 60 min/hour x 8760 hours/yr x 0.0005 ton/lb = 1.19 tons/yr

d. Emission Limitation:

Visible particulate emissions from the baghouse stack shall not exceed 0% opacity as a 3-minute average.

Applicable Compliance Method:

If required, compliance shall be determined according to test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

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 3745-17-07(A) OAC rule 3745-17-11(B)
P002 - Grain Hammermill 2 controlled with a Baghouse	OAC rule 3745-31-05(A)(3)	

Applicable Emissions
Limitations/Control Measures

The baghouse shall achieve an outlet emission rate of not greater than 0.00525 grain of particulate emissions per dry standard cubic foot of exhaust gases.

The baghouse shall achieve an outlet emission rate of not greater than 0.00525 grain of particulate matter less than 10 microns in diameter (PM_{10}) per dry standard cubic foot of exhaust gases.

Visible particulate emissions from the baghouse stack shall not exceed 0% opacity as a 3-minute average.

Particulate emissions (PE) shall not exceed 1.19 tons/yr.

PM_{10} emissions shall not exceed 1.19 tons/yr.

See Sections A.2.a and A.2.b.

The emission limitations specified by these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

2.a The permittee shall employ best available control measures for the emissions unit for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to maintain enclosures and vent all the particulate emissions to a baghouse to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

2.b Implementation of the above-mentioned control measure(s) in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-31-05.

2.c The annual allowable emission rate is based on the annual production of 75,000,000 gallons of 200 proof ethanol which is denatured (at 5%) with 3,750,000 gallons of gasoline (78,750,000 gallons total). Since the facility annual production rate is equivalent to the maximum capacity of emissions unit P003 (Fermentation and Beer Well), no operational restrictions, monitoring, recordkeeping or reporting requirements are necessary to ensure that this emissions unit does not exceed its annual allowable emission rates.

B. Operational Restrictions

1. The permittee shall operate the baghouse at all times when this 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 baghouse stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log, as well as the date and time the daily check was performed. If visible emissions are observed, the permittee shall also note the following in the operations log:

   a. the color of the emissions;

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

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

D. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

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. Emission Limitation:

      The baghouse shall achieve an outlet emission rate of not greater than 0.00525 grain of particulate emissions per dry standard cubic foot of exhaust gases.

      Applicable Compliance Method:

      If required, compliance with the mass emission limitation shall be determined according to test Methods 1 - 5, as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

   b. Emission Limitation:

      The baghouse shall achieve an outlet emission rate of not greater than 0.00525 grain of PM_{10} per dry standard cubic foot of exhaust gases.

      Applicable Compliance Method:

      If required, compliance with the mass emission limitation shall be determined according to test Methods 1 - 4, as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources", and test Method 201 as set forth in the most recent update of 40 CFR Part 51, Appendix M.

c. Emission Limitations:

PE shall not exceed 1.19 tons/yr.
PM_{10} emissions shall not exceed 1.19 tons/yr.

Applicable Compliance Method:

Compliance with the annual emission limitations shall be demonstrated using the following calculation based on the baghouse design and maximum operating schedule.

= 0.00525 gr/dscf x 1 lb/7000 gr x 6000 cfm x 60 min/hour x 8760 hours/yr x 0.0005 ton/lb = 1.19 tons/yr

d. Emission Limitation:

Visible particulate emissions from the baghouse stack shall not exceed 0% opacity as a 3-minute average.

Applicable Compliance Method:

If required, compliance shall be determined according to test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

F. Miscellaneous Requirements

None.

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 - Fermentation and Beer Well controlled with a Wet Scrubber	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions shall not exceed 6.00 lbs/hr and 26.28 tons/yr. The emissions from this emissions unit shall be vented to a wet scrubber with a control efficiency for VOC's of at least 98.5%. Acetaldehyde emissions shall not exceed 1.80 lbs/hr and 7.89 tons/yr. The requirements of this rule also include compliance with the requirements of 40 CFR Part 60, Subpart VV.
	OAC rule 3745-21-09(DD)	See the requirements for emissions unit P801.
	40 CFR Part 60, Subpart VV	See the requirements for emissions unit P801.

2. Additional Terms and Conditions

2.a None.

B. Operational Restrictions

1. The pressure drop across the scrubber shall be continuously maintained at a value of not less than 4 inches of water at all times while the emissions unit is in operation.

2. The scrubber water flow rate shall be continuously maintained at a value of not less than 120 gallons per minute at all times while the emissions unit is in operation.

3. The maximum annual facility denatured ethanol production shall not exceed 78,750,000 gallons, based upon a rolling, 12-month summation of monthly production rates.

C. Monitoring and/or Recordkeeping Requirements

1. 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. the operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

2. The permit to install for this emissions unit [P003] was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA-approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level

Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: acetaldehyde
TLV (ug/m3): 33,195 (Converted from the STEL)
Maximum Hourly Emission Rate (lbs/hr): 2.10*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 233
MAGLC (ug/m3): 790

Pollutant: acetic acid
TLV (ug/m3): 24,539
Maximum Hourly Emission Rate (lbs/hr): 4.17*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 185
MAGLC (ug/m3): 584

Pollutant: ethanol
TLV (ug/m3): 1,884,253
Maximum Hourly Emission Rate (lbs/hr): 3.68*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 294
MAGLC (ug/m3): 44,863

Pollutant: ethyl acetate
TLV (ug/m3): 1,441,309
Maximum Hourly Emission Rate (lbs/hr): 2.20*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 273
MAGLC (ug/m3): 33,333

* Modeled for emissions units P003, P005, P006, and P007, combined.

3. Physical changes to or changes in the method of operation of the emissions unit after its 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 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 or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs, Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices";

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

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

4. 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 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, 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 the 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.

5. The permittee shall maintain monthly records of the following information for this emissions unit:

   a. the denatured ethanol production for the month, in gallons;

   b. during the first 12 calendar months of operation, the cumulative denatured ethanol production, in gallons; and

   c. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of monthly denatured ethanol production, in gallons.

D. Reporting Requirements

1. 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.

These deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

2. The permittee shall submit deviation (excursion) reports that identify any exceedances of the rolling, 12-month denatured ethanol production limitation. These reports shall be submitted within 30 days after the deviation occurs.

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. Emission Limitations:

VOC emissions shall not exceed 6.00 lbs/hr and 26.28 tons/yr.

Applicable Compliance Methods:

Compliance with the hourly emission limitation shall be demonstrated based on emission testing performed in accordance with Section E.2.

Compliance with the annual emission limitation shall be demonstrated by multiplying the emissions unit-specific VOC emission factor, in lbs/hr, established during the most recent emission test by the maximum operating schedule of 8760 hours/year and by 0.0005 ton/lb.

b. Emission Limitations:

Acetaldehyde emissions shall not exceed 1.80 lbs/hr and 7.89 tons/yr.

Applicable Compliance Methods:

Compliance with the hourly emission limitation shall be demonstrated based on emission testing performed in accordance with Section E.2.

Compliance with the annual emission limitation shall be demonstrated by multiplying the emissions unit-specific acetaldehyde emission factor, in lbs/hr, established during the most recent emission test by the maximum operating schedule of 8760 hours/year and by 0.0005 ton/lb.

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

a. The emission testing shall be conducted 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 start-up of the emissions unit and, for VOC, every 5 years thereafter.

b. The emission testing shall be conducted to demonstrate compliance with the lbs/hr limitations for VOC and acetaldehyde and the VOC control efficiency requirement. The testing shall also measure emissions of acrolein, methanol and formaldehyde.

c. The following test method(s) shall be employed to demonstrate compliance with the above emission limitations for VOC and acetaldehyde and to measure emissions for acrolein, methanol and formaldehyde: Methods 1 through 4 and 18, 0011, 25, or 25A (as indicated by the Midwest Scaling Protocol) of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The testing shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

e. The hourly VOC and acetaldehyde emission rates shall be determined in accordance with the test methods and procedures specified in the Midwest Scaling Protocol or an alternative U.S. EPA-approved method. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

f. 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, Southeast District Office. 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, Southeast District Office refusal to accept the results of the emission test(s).

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

h. A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office 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, Southeast District Office.

i. If the initial emission test demonstrates that acetaldehyde emissions are 75% or more of the permit limit, the permittee shall conduct emission testing for acetaldehyde, acrolein, methanol and formaldehyde as specified in this section (E.2.) every 5 years.

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	
P004 - 17 MMBTU/hr Emergency Generator	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07(A)(1) OAC rule 3745-17-10(B)(1) OAC rule 3745-18-06(G)
		OAC rule 3745-21-08(B)
		OAC rule 3745-23-06(B)
		OAC rule 3745-31-05(C)

Applicable Emissions Limitations/Control Measures	
Nitrogen oxides (NO_x) emissions shall not exceed 66.00 lbs/hr and 6.60 tons/yr.	The emission limitations specified by these rules are equivalent to or less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
Carbon monoxide (CO) emissions shall not exceed 15.13 lbs/hr.	See Section A.2.a.
Particulate emissions (PE) shall not exceed 1.93 lbs/hr and 0.20 ton/yr.	See Section A.2.b.
Emissions of particulate matter less than 10 microns in diameter (PM_{10}) shall not exceed 1.93 lbs/hr and 0.20 ton/yr.	CO emissions shall not exceed 1.52 tons per rolling, 12-month period.
Sulfur dioxide (SO_2) emissions shall not exceed 0.83 lb/hr and 0.09 ton/yr.	
Volatile organic compound (VOC) emissions shall not exceed 1.93 lbs/hr and 0.20 ton/yr.	
Visible particulate emissions from the stack shall not exceed 20% opacity as a six-minute average.	
The requirements of this rule also include compliance with the requirements of OAC rules 3745-21-08(B), 3745-23-06(B) and 3745-31-05(C).	

2. Additional Terms and Conditions

2.a 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.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

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.

On February 14, 2005, OAC rule 3745-23-06 was rescinded; therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the U.S. EPA approves the revision, the requirement to satisfy the "latest available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

B. Operational Restrictions

1. The maximum number of operating hours for this emissions unit shall not exceed 200 hours based upon a rolling, 12-month summation of the operating hours.

   To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed 200 cumulative operating hours during months 1 through 12.

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

2. The permittee shall only burn low sulfur No. 2 or diesel fuel, containing less than 0.5% sulfur by weight, in this emissions unit.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain records of the sulfur content of all fuels received for use in this emissions unit.

2. For each day during which the permittee burns a fuel other than low sulfur No. 2 or diesel fuel in this emissions unit, the permittee shall maintain a record of the type and quantity of fuel burned.

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

   a. the monthly hours of operation;

   b. during the first 12 calendar months of operation following the issuance of this permit, the cumulative hours of operation, calculated by adding the current month's operating hours to the operating hours for each calendar month since the issuance of this permit;

   c. beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the hours of operation, calculated by adding the current month's operating hours to the operating hours for the preceding eleven calendar months;

   d. the monthly CO emissions, in tons (calculated by multiplying the maximum hourly emission rate of 15.13 lbs/hr by the number of hours operated for the month from C.3.a. above and by 0.0005 ton/lb); and

   e. beginning after the first 12 calendar months of operation, records of the rolling, 12-month summation of the monthly CO emissions, in tons.

4. The permittee shall maintain annual records of the operating hours for the calendar year.

Emissions Unit ID: **P004**

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than low sulfur No. 2 or diesel fuel was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

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

   a. for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative hours of operation;

   b. any exceedance of the rolling, 12-month hours of operation limitation;

   c. any exceedance of the fuel sulfur content restriction specified in Section B.2.; and

   d. after the first 12 calendar months of operation, all exceedances of the rolling, 12-month emission limitation for CO.

   These reports shall be submitted within 30 days after the exceedance occurs.

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. Emission Limitations:

      NO_x emissions shall not exceed 66.00 lbs/hr and 6.60 tons/yr.

      Applicable Compliance Methods:

      Compliance with the hourly emission limitation may be demonstrated by the following one-time calculation using the vendor-supplied emission factor of 0.024 lb/HP-hr and the maximum rated capacity of 2750 HP.

$$
\begin{aligned}
NO_x &= EF \times HP \\
&= 0.024 \text{ lb/HP-hr} \times 2750 \text{ HP} \\
&= 66.00 \text{ lbs/hr}
\end{aligned}
$$

If required, compliance with the hourly emission limitation shall be determined according to test Methods 1 - 4, and 7 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

Compliance with the annual emission limitation shall be demonstrated by multiplying the maximum hourly emission rate of 66.00 lbs/hr by the annual operating hours recorded in accordance with Section C.4. above and by 0.0005 ton/lb.

b. Emission Limitations:

CO emissions shall not exceed 15.13 lbs/hr and 1.52 tons per rolling, 12-month period.

Applicable Compliance Methods:

Compliance with the hourly emission limitation may be demonstrated by the following one-time calculation using the vendor-supplied emission factor of 0.0055 lb/HP-hr and the maximum rated capacity of 2750 HP.

CO = EF x HP
= 0.0055 lb/HP-hr x 2750 HP
= 15.13 lbs/hr

If required, compliance with the hourly emission limitation shall be determined according to test Methods 1 - 4, and 10 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

Compliance with the rolling, 12-month emission limitation shall be demonstrated based upon the records required pursuant to Section C.3.e.

c. Emission Limitations:

PE shall not exceed 1.93 lbs/hr and 0.20 ton/yr.

Applicable Compliance Methods:

Compliance with the hourly emission limitation may be demonstrated by the following one-time calculation using the vendor-supplied emission factor of 0.0007 lb/HP-hr and the maximum rated capacity of 2750 HP.

PE = EF x HP

= 0.0007 lb/HP-hr x 2750 HP
= 1.93 lbs/hr

If required, compliance with the hourly emission limitation shall be determined according to test Methods 1 - 5, as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

Compliance with the annual emission limitation shall be demonstrated by multiplying the maximum hourly emission rate of 1.93 lbs/hr by the annual operating hours recorded in accordance with Section C.4. above and by 0.0005 ton/lb.

d. Emission Limitations:

PM_{10} emissions shall not exceed 1.93 lbs/hr and 0.20 ton/yr.

Applicable Compliance Methods:

Compliance with the hourly emission limitation may be demonstrated by the following one-time calculation using the vendor-supplied emission factor of 0.0007 lb/HP-hr and the maximum rated capacity of 2750 HP.

PM_{10} = EF x HP
= 0.0007 lb/HP-hr x 2750 HP
= 1.93 lbs/hr

If required, compliance with the hourly emission limitation shall be determined according to test Methods 1 - 4, as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources", and test Methods 201 and 202 as set forth in the most recent update of 40 CFR Part 51, Appendix M.

Compliance with the annual emission limitation shall be demonstrated by multiplying the maximum hourly emission rate of 1.93 lbs/hr by the annual operating hours recorded in accordance with Section C.4. above and by 0.0005 ton/lb.

e. Emission Limitations:

SO_2 emissions shall not exceed 0.83 lb/hr and 0.09 ton/yr.

Applicable Compliance Methods:

Compliance with the hourly emission limitation may be demonstrated by the following one-time calculation using the vendor-supplied emission factor of 0.0003 lb/HP-hr and the maximum rated capacity of 2750 HP.

SO_2 = EF x HP
= 0.0003 lb/HP-hr x 2750 HP
= 0.83 lb/hr

If required, compliance with the hourly emission limitation shall be determined according to test Methods 1 - 4, and 6 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

Compliance with the annual emission limitation shall be demonstrated by multiplying the maximum hourly emission rate of 0.83 lb/hr by the annual operating hours recorded in accordance with Section C.4. above and by 0.0005 ton/lb.

f. Emission Limitations:

VOC emissions shall not exceed 1.93 lbs/hr and 0.20 ton/yr.

Applicable Compliance Methods:

Compliance with the hourly emission limitation may be demonstrated by the following one-time calculation using the vendor-supplied emission factor of 0.0007 lb/HP-hr and the maximum rated capacity of 2750 HP.

VOC = EF x HP
= 0.0007 lb/HP-hr x 2750 HP
= 1.93 lbs/hr

If required, compliance with the hourly emission limitation shall be determined according to test Methods 1 - 4, and 25 or 25A, as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

Compliance with the annual emission limitation shall be demonstrated by multiplying the maximum hourly emission rate of 1.93 lbs/hr by the annual operating hours recorded in accordance with Section C.4. above and by 0.0005 ton/lb.

g. Emission Limitation:

Visible particulate emissions from the stack shall not exceed 20% opacity as a six-minute average.

Applicable Compliance Method:

If required, compliance shall be determined according to test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

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	
P005 - 47.9 MMBTU/hr DDGS Dryer and Cooler 1 controlled with a Cyclone and 6.25 MMBTU/hr Regenerative Thermal Oxidizer	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07(A)(1) OAC rule 3745-17-10(B)(1)
		OAC rule 3745-18-06
		OAC rule 3745-21-08(B)
		OAC rule 3745-23-06(B)

Emissions Unit ID: **P005**

Applicable Emissions Limitations/Control Measures	The requirements of this rule also include compliance with the requirements of OAC rules 3745-21-08(B) and 3745-23-06(B).
Nitrogen oxides (NO_x) emissions shall not exceed 2.20 lbs/hr and 9.64 tons/yr.	The emission limitations specified by these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
Carbon monoxide (CO) emissions shall not exceed 3.44 lbs/hr and 15.07 tons/yr.	
Particulate emissions (PE) shall not exceed 1.50 lbs/hr and 6.57 tons/yr.	See Section A.2.a.
Emissions of particulate matter less than 10 microns in diameter (PM_{10}) shall not exceed 0.56 lb/hr and 2.46 tons/yr.	See Section A.2.b.
Sulfur dioxide (SO_2) emissions shall not exceed 0.04 lb/hr and 0.18 ton/yr.	See Section A.2.c.
Volatile organic compound (VOC) emissions shall not exceed 2.84 lbs/hr and 12.44 tons/yr.	
Acetaldehyde emissions shall not exceed 0.14 lb/hr and 0.62 ton/yr.	
Visible particulate emissions from the regenerative thermal oxidizer stack shall not exceed 5% opacity as a six-minute average.	

2. Additional Terms and Conditions

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

2.b 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.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

2.c 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.

On February 14, 2005, OAC rule 3745-23-06 was rescinded; therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the U.S. EPA approves the revision, the requirement to satisfy the "latest available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

2.d The annual allowable emission rate is based on the annual production of 75,000,000 gallons of 200 proof ethanol which is denatured (at 5%) with 3,750,000 gallons of gasoline (78,750,000 gallons total). Since the facility annual production rate is equivalent to the maximum capacity of emissions unit P003 (Fermentation and Beer Well), no operational restrictions, monitoring, recordkeeping or reporting requirements are necessary to ensure that this emissions unit does not exceed its annual allowable emission rates.

B. Operational Restrictions

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

2. The average combustion temperature within the regenerative 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.

C. Monitoring and/or Recordkeeping Requirements

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

2. The permittee shall install, operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the regenerative 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 modifications 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 regenerative 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.

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

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

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

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

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

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

4. The permit to install for this emissions unit [P005] was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA-approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: acetaldehyde
TLV (ug/m3): 33,195 (Converted from the STEL)
Maximum Hourly Emission Rate (lbs/hr): 2.10*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 233
MAGLC (ug/m3): 790

Pollutant: acetic acid
TLV (ug/m3): 24,539
Maximum Hourly Emission Rate (lbs/hr): 4.17*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 185
MAGLC (ug/m3): 584

Pollutant: ethanol
TLV (ug/m3): 1,884,253
Maximum Hourly Emission Rate (lbs/hr): 3.68*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 294
MAGLC (ug/m3): 44,863

Pollutant: ethyl acetate
TLV (ug/m3): 1,441,309
Maximum Hourly Emission Rate (lbs/hr): 2.20*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 273
MAGLC (ug/m3): 33,333

* Modeled for emissions units P003, P005, P006, and P007, combined.

5. Physical changes to or changes in the method of operation of the emissions unit after its 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 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 or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs, Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices";

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

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

6. 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 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, 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 the 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 the emissions unit. These reports shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit deviation (excursion) reports that identify all 3-hour blocks of time during which the average combustion temperature within the regenerative thermal oxidizer does not comply with the temperature limitation specified above. These deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

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. Emission Limitations:

      NO_x emissions shall not exceed 2.20 lbs/hr and 9.64 tons/yr.

      Applicable Compliance Methods:

      Compliance with the hourly emission limitation shall be demonstrated based on emission testing performed in accordance with Section E.2.

      Compliance with the annual emission limitation shall be demonstrated by multiplying the emissions unit-specific NO_x emission factor, in lbs/hr, established during the most recent emission test by the maximum operating schedule of 8760 hours/year and by 0.0005 ton/lb.

   b. Emission Limitations:

CO emissions shall not exceed 3.44 lbs/hr and 15.07 tons/yr.

Applicable Compliance Methods:

Compliance with the hourly emission limitation shall be demonstrated based on emission testing performed in accordance with Section E.2.

Compliance with the annual emission limitation shall be demonstrated by multiplying the emissions unit-specific CO emission factor, in lbs/hr, established during the most recent emission test by the maximum operating schedule of 8760 hours/year and by 0.0005 ton/lb.

c. Emission Limitations:

PE shall not exceed 1.50 lbs/hr and 6.57 tons/yr.

Applicable Compliance Methods:

Compliance with the hourly emission limitation shall be demonstrated based on emission testing performed in accordance with Section E.2.

Compliance with the annual emission limitation shall be demonstrated by multiplying the emissions unit-specific PE emission factor, in lbs/hr, established during the most recent emission test by the maximum operating schedule of 8760 hours/year and by 0.0005 ton/lb.

d. Emission Limitations:

PM_{10} emissions shall not exceed 0.56 lb/hr and 2.46 tons/yr.

Applicable Compliance Methods:

Compliance with the hourly emission limitation shall be demonstrated based on emission testing performed in accordance with Section E.2.

Compliance with the annual emission limitation shall be demonstrated by multiplying the emissions unit-specific PM_{10} emission factor, in lb/hr, established during the most recent emission test by the maximum operating schedule of 8760 hours/year and by 0.0005 ton/lb.

e. Emission Limitations:

SO_2 emissions shall not exceed 0.04 lb/hr and 0.18 ton/yr.

Applicable Compliance Methods:

Compliance with the hourly emission limitation may be demonstrated by multiplying the emission factor of 0.000588 lb SO_2/MMBTU (from AP-42, Table 1.4-2, July 1998) by the maximum combined fuel heat input rate of 54.15 MMBTU/hr for the dryer and regenerative thermal oxidizer.

If required, compliance with the hourly emission limitation shall be determined according to test Methods 1 - 4, and 6 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

Compliance with the annual emission limitation shall be demonstrated by multiplying the maximum hourly emission rate of 0.04 lb/hr by the maximum operating schedule of 8760 hours/year and by 0.0005 ton/lb.

f. Emission Limitations:

VOC emissions shall not exceed 2.84 lbs/hr and 12.44 tons/yr.

Applicable Compliance Methods:

Compliance with the hourly emission limitation shall be demonstrated based on emission testing performed in accordance with Section E.2.

Compliance with the annual emission limitation shall be demonstrated by multiplying the emissions unit-specific VOC emission factor, in lbs/hr, established during the most recent emission test by the maximum operating schedule of 8760 hours/year and by 0.0005 ton/lb.

g. Emission Limitations:

Acetaldehyde emissions shall not exceed 0.14 lb/hr and 0.62 ton/yr.

Applicable Compliance Methods:

Compliance with the hourly emission limitation shall be demonstrated based on emission testing performed in accordance with Section E.2.

Compliance with the annual emission limitation shall be demonstrated by multiplying the emissions unit-specific acetaldehyde emission factor, in lb/hr, established during the most recent emission test by the maximum operating schedule of 8760 hours/year and by 0.0005 ton/lb.

h. Emission Limitation:

Visible particulate emissions from the regenerative thermal oxidizer stack shall not exceed 5% opacity as a six-minute average.

Applicable Compliance Method:

Compliance shall be demonstrated based on emission testing performed in accordance with Section E.2.

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

a. The emission testing shall be conducted 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 start-up of the emissions unit and, for VOC, every 5 years thereafter.

b. The emission testing shall be conducted to demonstrate compliance with the lbs/hr limitations for NO_x, CO, PE, PM_{10}, VOC and acetaldehyde, and the opacity limitation. The testing shall also measure emissions of acrolein, methanol and formaldehyde.

c. The following test method(s) shall be employed to demonstrate compliance with the above emission limitations and/or measure emissions: for NO_x, Methods 1 through 4 and 7 of 40 CFR Part 60, Appendix A; for CO, Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A; for PE, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for PM_{10}, Methods 1 through 4 of 40 CFR Part 60, Appendix A, and Methods 201 and 202 as set forth in the most recent update of 40 CFR Part 51, Appendix M; for VOC, acetaldehyde, acrolein, methanol and formaldehyde, Methods 1 - 4 and 18, 0011, 25, or 25A (as indicated by the Midwest Scaling Protocol) 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.

d. The testing shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

e. The hourly VOC and acetaldehyde emission rates shall be determined in accordance with the test methods and procedures specified in the Midwest Scaling Protocol or an alternative U.S. EPA-approved method. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

f. 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, Southeast District Office. 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, Southeast District Office refusal to accept the results of the emission test(s).

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

h. A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office 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, Southeast District Office.

i. If the initial emission test demonstrates that acetaldehyde emissions are 75% or more of the permit limit, the permittee shall conduct emission testing for acetaldehyde, acrolein, methanol and formaldehyde as specified in this section (E.2.) every 5 years.

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	
P006 - 47.9 MMBTU/hr DDGS Dryer and Cooler 2 controlled with a Cyclone and 6.25 MMBTU/hr Regenerative Thermal Oxidizer	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07(A)(1) OAC rule 3745-17-10(B)(1)
		OAC rule 3745-18-06
		OAC rule 3745-21-08(B)
		OAC rule 3745-23-06(B)

Applicable Emissions Limitations/Control Measures	
	average.
Nitrogen oxides (NO_x) emissions shall not exceed 2.20 lbs/hr and 9.64 tons/yr.	The requirements of this rule also include compliance with the requirements of OAC rules 3745-21-08(B) and 3745-23-06(B).
Carbon monoxide (CO) emissions shall not exceed 3.44 lbs/hr and 15.07 tons/yr.	The emission limitations specified by these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
Particulate emissions (PE) shall not exceed 1.50 lbs/hr and 6.57 tons/yr.	See Section A.2.a.
Emissions of particulate matter less than 10 microns in diameter (PM_{10}) shall not exceed 0.56 lb/hr and 2.46 tons/yr.	See Section A.2.b.
Sulfur dioxide (SO_2) emissions shall not exceed 0.04 lb/hr and 0.18 ton/yr.	See Section A.2.c.
Volatile organic compound (VOC) emissions shall not exceed 2.84 lbs/hr and 12.44 tons/yr.	
Acetaldehyde emissions shall not exceed 0.14 lb/hr and 0.62 ton/yr.	
Visible particulate emissions from the regenerative thermal oxidizer stack shall not exceed 5% opacity as a six-minute	

Emissions Unit ID: **P006**

2. Additional Terms and Conditions

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

2.b 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.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

2.c 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.

On February 14, 2005, OAC rule 3745-23-06 was rescinded; therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the U.S. EPA approves the revision, the requirement to satisfy the "latest available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

2.d The annual allowable emission rate is based on the annual production of 75,000,000 gallons of 200 proof ethanol which is denatured (at 5%) with 3,750,000 gallons of gasoline (78,750,000 gallons total). Since the facility annual production rate is equivalent to the maximum capacity of emissions unit P003 (Fermentation and Beer Well), no operational restrictions, monitoring, recordkeeping or reporting requirements are necessary to ensure that this emissions unit does not exceed its annual allowable emission rates.

B. Operational Restrictions

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

2. The average combustion temperature within the regenerative 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.

C. Monitoring and/or Recordkeeping Requirements

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

2. The permittee shall install, operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the regenerative 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 modifications 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 regenerative 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.

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

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

   a. the color of the emissions;

b. whether the emissions are representative of normal operations;

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

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

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

4. The permit to install for this emissions unit [P006] was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA-approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: acetaldehyde
TLV (ug/m3): 33,195 (Converted from the STEL)
Maximum Hourly Emission Rate (lbs/hr): 2.10*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 233
MAGLC (ug/m3): 790

Pollutant: acetic acid
TLV (ug/m3): 24,539
Maximum Hourly Emission Rate (lbs/hr): 4.17*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 185
MAGLC (ug/m3): 584

Pollutant: ethanol
TLV (ug/m3): 1,884,253
Maximum Hourly Emission Rate (lbs/hr): 3.68*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 294
MAGLC (ug/m3): 44,863

Pollutant: ethyl acetate

TLV (ug/m3): 1,441,309
Maximum Hourly Emission Rate (lbs/hr): 2.20*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 273
MAGLC (ug/m3): 33,333

* Modeled for emissions units P003, P005, P006, and P007, combined.

5. Physical changes to or changes in the method of operation of the emissions unit after its 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 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 or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs, Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices";

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

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

6. 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 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

Emissions Unit ID: **P006**

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 the 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 the emissions unit. These reports shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit deviation (excursion) reports that identify all 3-hour blocks of time during which the average combustion temperature within the regenerative thermal oxidizer does not comply with the temperature limitation specified above. These deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

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. Emission Limitations:

      NO_x emissions shall not exceed 2.20 lbs/hr and 9.64 tons/yr.

      Applicable Compliance Methods:

      Compliance with the hourly emission limitation shall be demonstrated based on emission testing performed in accordance with Section E.2.

      Compliance with the annual emission limitation shall be demonstrated by multiplying the emissions unit-specific NO_x emission factor, in lbs/hr, established during the most recent emission test by the maximum operating schedule of 8760 hours/year and by 0.0005 ton/lb.

   b. Emission Limitations:

CO emissions shall not exceed 3.44 lbs/hr and 15.07 tons/yr.

Applicable Compliance Methods:

Compliance with the hourly emission limitation shall be demonstrated based on emission testing performed in accordance with Section E.2.

Compliance with the annual emission limitation shall be demonstrated by multiplying the emissions unit-specific CO emission factor, in lbs/hr, established during the most recent emission test by the maximum operating schedule of 8760 hours/year and by 0.0005 ton/lb.

c. Emission Limitations:

PE shall not exceed 1.50 lbs/hr and 6.57 tons/yr.

Applicable Compliance Methods:

Compliance with the hourly emission limitation shall be demonstrated based on emission testing performed in accordance with Section E.2.

Compliance with the annual emission limitation shall be demonstrated by multiplying the emissions unit-specific PE emission factor, in lbs/hr, established during the most recent emission test by the maximum operating schedule of 8760 hours/year and by 0.0005 ton/lb.

d. Emission Limitations:

PM_{10} emissions shall not exceed 0.56 lb/hr and 2.46 tons/yr.

Applicable Compliance Methods:

Compliance with the hourly emission limitation shall be demonstrated based on emission testing performed in accordance with Section E.2.

Compliance with the annual emission limitation shall be demonstrated by multiplying the emissions unit-specific PM_{10} emission factor, in lb/hr, established during the most recent emission test by the maximum operating schedule of 8760 hours/year and by 0.0005 ton/lb.

e. Emission Limitations:

SO_2 emissions shall not exceed 0.04 lb/hr and 0.18 ton/yr.

Applicable Compliance Methods:

Compliance with the hourly emission limitation may be demonstrated by multiplying the emission factor of 0.000588 lb SO_2/MMBTU (from AP-42, Table 1.4-2, July 1998) by the maximum combined fuel heat input rate of 54.15 MMBTU/hr for the dryer and regenerative thermal oxidizer.

If required, compliance with the hourly emission limitation shall be determined according to test Methods 1 - 4, and 6 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

Compliance with the annual emission limitation shall be demonstrated by multiplying the maximum hourly emission rate of 0.04 lb/hr by the maximum operating schedule of 8760 hours/year and by 0.0005 ton/lb.

f. Emission Limitations:

VOC emissions shall not exceed 2.84 lbs/hr and 12.44 tons/yr.

Applicable Compliance Methods:

Compliance with the hourly emission limitation shall be demonstrated based on emission testing performed in accordance with Section E.2.

Compliance with the annual emission limitation shall be demonstrated by multiplying the emissions unit-specific VOC emission factor, in lbs/hr, established during the most recent emission test by the maximum operating schedule of 8760 hours/year and by 0.0005 ton/lb.

g. Emission Limitations:

Acetaldehyde emissions shall not exceed 0.14 lb/hr and 0.62 ton/yr.

Applicable Compliance Methods:

Compliance with the hourly emission limitation shall be demonstrated based on emission testing performed in accordance with Section E.2.

Compliance with the annual emission limitation shall be demonstrated by multiplying the emissions unit-specific acetaldehyde emission factor, in lb/hr, established during the most recent emission test by the maximum operating schedule of 8760 hours/year and by 0.0005 ton/lb.

h. Emission Limitation:

Visible particulate emissions from the regenerative thermal oxidizer stack shall not exceed 5% opacity as a six-minute average.

Applicable Compliance Method:

Compliance shall be demonstrated based on emission testing performed in accordance with Section E.2.

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

a. The emission testing shall be conducted 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 start-up of the emissions unit and, for VOC, every 5 years thereafter.

b. The emission testing shall be conducted to demonstrate compliance with the lbs/hr limitations for NO_x, CO, PE, PM_{10}, VOC and acetaldehyde, and the opacity limitation. The testing shall also measure emissions of acrolein, methanol and formaldehyde.

c. The following test method(s) shall be employed to demonstrate compliance with the above emission limitations and/or measure emissions: for NO_x, Methods 1 through 4 and 7 of 40 CFR Part 60, Appendix A; for CO, Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A; for PE, Methods 1 through 5 of 40 CFR Part 60, Appendix A; for PM_{10}, Methods 1 through 4 of 40 CFR Part 60, Appendix A, and Methods 201 and 202 as set forth in the most recent update of 40 CFR Part 51, Appendix M; for VOC, acetaldehyde, acrolein, methanol and formaldehyde, Methods 1 - 4 and 18, 0011, 25, or 25A (as indicated by the Midwest Scaling Protocol) 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.

d. The testing shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

e. The hourly VOC and acetaldehyde emission rates shall be determined in accordance with the test methods and procedures specified in the Midwest Scaling Protocol or an alternative U.S. EPA-approved method. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

f. 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, Southeast District Office. 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, Southeast District Office refusal to accept the results of the emission test(s).

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

h. A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office 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, Southeast District Office.

i. If the initial emission test demonstrates that acetaldehyde emissions are 75% or more of the permit limit, the permittee shall conduct emission testing for acetaldehyde, acrolein, methanol and formaldehyde as specified in this section (E.2.) every 5 years.

Emissions Unit ID: **P006**

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
P007 - Ethanol Production Operations, including Mash and Yeast, Distillation, Stillage, Condensation, Evaporation, and Dehydration Operations controlled with a Wet Scrubber	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions shall not exceed 0.50 lb/hr and 2.19 tons/yr. This emissions unit shall be vented to a wet scrubber with a control efficiency for VOC's of at least 98.5%. The requirements of this rule also include compliance with the requirements of 40 CFR Part 60, Subpart VV and OAC rule 3745-21-09(DD).
	OAC rule 3745-21-09(DD)	See the requirements for emissions unit P801.
	40 CFR Part 60, Subpart VV	See the requirements for emissions unit P801.

2. Additional Terms and Conditions

2.a The annual allowable emission rate is based on the annual production of 75,000,000 gallons of 200 proof ethanol which is denatured (at 5%) with 3,750,000 gallons of gasoline (78,750,000 gallons total). Since the facility

annual production rate is equivalent to the maximum capacity of emissions unit P003 (Fermentation and Beer Well), no operational restrictions, monitoring, recordkeeping or reporting requirements are necessary to ensure that this emissions unit does not exceed its annual allowable emission rates.

Emissions Unit ID: **P007**

B. Operational Restrictions

1. The pressure drop across the scrubber shall be continuously maintained at a value of not less than 4 inches of water at all times while the emissions unit is in operation.

2. The scrubber water flow rate shall be continuously maintained at a value of not less than 30 gallons per minute at all times while the emissions unit is in operation.

C. Monitoring and/or Recordkeeping Requirements

1. 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. the operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

2. The permit to install for this emissions unit [P007] was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA-approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

   Pollutant: acetaldehyde

TLV (ug/m3): 33,195 (Converted from the STEL)
Maximum Hourly Emission Rate (lbs/hr): 2.10*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 233
MAGLC (ug/m3): 790

Pollutant: acetic acid
TLV (ug/m3): 24,539

Maximum Hourly Emission Rate (lbs/hr): 4.17*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 185
MAGLC (ug/m3): 584

Pollutant: ethanol
TLV (ug/m3): 1,884,253
Maximum Hourly Emission Rate (lbs/hr): 3.68*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 294
MAGLC (ug/m3): 44,863

Pollutant: ethyl acetate
TLV (ug/m3): 1,441,309
Maximum Hourly Emission Rate (lbs/hr): 2.20*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 273
MAGLC (ug/m3): 33,333

* Modeled for emissions units P003, P005, P006, and P007, combined.

3. Physical changes to or changes in the method of operation of the emissions unit after its 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 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 or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs, Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices";

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

   c. physical changes to the emissions unit or its exhaust parameters (e.g.,

increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

4. 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 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, 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 the 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 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.

2. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

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. Emission Limitations:

      VOC emissions shall not exceed 0.50 lb/hr and 2.19 tons/yr.

      Applicable Compliance Methods:

      Compliance with the hourly emission limitation shall be demonstrated based on emission testing performed in accordance with Section E.2.

      Compliance with the annual emission limitation shall be demonstrated by multiplying the emissions unit-specific VOC emission factor, in lb/hr, established during the most recent emission test by the maximum operating schedule of 8760 hours/year and by 0.0005 ton/lb.

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

   a. The emission testing shall be conducted 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 start-up of the emissions unit and, for VOC, every 5 years thereafter.

   b. The emission testing shall be conducted to demonstrate compliance with the lb/hr limitation for VOC and the VOC control efficiency requirement. The testing shall also measure emissions of acetaldehyde, acrolein, methanol and formaldehyde.

   c. The following test method(s) shall be employed to demonstrate compliance with the above emission limitation for VOC and to measure emissions of acetaldehyde, acrolein, methanol and formaldehyde: Methods 1 through 4 and 18, 0011, 25, or 25A (as indicated by the Midwest Scaling Protocol) of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

   d. The testing shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

e. The hourly VOC and acetaldehyde emission rates shall be determined in accordance with the test methods and procedures specified in the Midwest Scaling Protocol or an alternative U.S. EPA-approved method. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

f. 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, Southeast District Office. 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, Southeast District Office refusal to accept the results of the emission test(s).

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

h. A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office 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, Southeast District Office.

i. If the initial emission test demonstrates that the average hourly acetaldehyde emissions rate is 0.015 lb/hr (75% x 0.02 lb/hr) or more, the permittee shall conduct emission testing for acetaldehyde, acrolein, methanol and formaldehyde as specified in this section (E.2.) every 5 years. If the selected test method's detection limit for acetaldehyde is higher than 0.015 lb/hr, any detect shall be considered 0.015 lb/hr and any non-detect shall be considered less than 0.015 lb/hr.

F. Miscellaneous Requirements

Emissions Unit ID: **P007**

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
P009 - Cooling Towers	OAC rule 3745-31-05(A)(3)	Particulate emissions (PE) shall not exceed 1.95 lbs/hr and 8.55 tons/yr. Emissions of particulate matter less than 10 microns in diameter (PM_{10}) shall not exceed 1.95 lbs/hr and 8.55 tons/yr. Visible particulate emissions shall not exceed 10% opacity as a six-minute average. See Section B.1.
	OAC rule 3745-17-07(A) OAC rule 3745-17-11(B)	The emission limitations specified by these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

2.a None.

B. Operational Restrictions

1. The permittee shall maintain the total dissolved solids (TDS) content of the circulating cooling water at 2,500 ppm or less.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall monitor the TDS content of the circulating cooling water on a monthly basis. The permittee shall maintain monthly records of the TDS content, in ppm.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify any exceedances of the TDS content requirement. These reports shall be submitted within 30 days after the deviation occurs.

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. Emission Limitations:

      PE shall not exceed 1.95 lbs/hr and 8.55 tons/yr.
      PM_{10} emissions shall not exceed 1.95 lbs/hr and 8.55 tons/yr.

      Applicable Compliance Methods:

      Compliance with the lbs/hr emission limitation shall be demonstrated by multiplying the drift loss factor supplied by the permittee (415 lbs/million gallons water flow based on 0.005 percent drift) by the maximum circulating water flow rate (1.87 million gallons per hour) and by the average total dissolved solids content (ppm) of the cooling water and dividing by 1,000,000 (ppm).

      Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate as calculated above by the maximum operating schedule of 8760 hours/year and by 0.0005 ton/lb.

      If required, the permittee shall submit a testing proposal to demonstrate that the maximum drift loss does not exceed 0.005 percent.

   b. Emission Limitation:

Emissions Unit ID: **P009**

Visible particulate emissions shall not exceed 10% opacity as a six-minute average.

Applicable Compliance Method:

If required, compliance shall be determined according to test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

F. Miscellaneous Requirements

None.

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PTI Application: 06-07704
Modification Issued: 5/18/2006

Emissions Unit ID: **P010**

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 3745-17-11(B)
P010 - Ground Grain Bin controlled with a Baghouse	OAC rule 3745-31-05(A)(3)	
	OAC rule 3745-17-07(A)	

Emissions Unit ID: **P010**

Applicable Emissions
Limitations/Control Measures

The baghouse shall achieve an outlet emission rate of not greater than 0.00525 grain of particulate emissions per dry standard cubic foot of exhaust gases.

The baghouse shall achieve an outlet emission rate of not greater than 0.00525 grain of particulate matter less than 10 microns in diameter (PM_{10}) per dry standard cubic foot of exhaust gases.

Visible particulate emissions from the baghouse stack shall not exceed 0% opacity as a 3-minute average.

Particulate emissions (PE) shall not exceed 0.10 ton/yr.

PM_{10} emissions shall not exceed 0.10 ton/yr.

See Sections A.2.a and A.2.b.

The emission limitations specified by these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

2.a The permittee shall employ best available control measures for the emissions unit for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to maintain enclosures and vent all the particulate emissions to a baghouse to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

2.b Implementation of the above-mentioned control measure(s) in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-31-05.

2.c The annual allowable emission rate is based on the annual production of 75,000,000 gallons of 200 proof ethanol which is denatured (at 5%) with 3,750,000 gallons of gasoline (78,750,000 gallons total). Since the facility annual production rate is equivalent to the maximum capacity of emissions unit P003 (Fermentation and Beer Well), no operational restrictions, monitoring, recordkeeping or reporting requirements are necessary to ensure that this emissions unit does not exceed its annual allowable emission rates.

B. Operational Restrictions

1. The permittee shall operate the baghouse at all times when this 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 baghouse stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log, as well as the date and time the daily check was performed. If visible emissions are observed, the permittee shall also note the following in the operations log:

   a. the color of the emissions;

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

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

D. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

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. Emission Limitation:

The baghouse shall achieve an outlet emission rate of not greater than 0.00525 grain of particulate emissions per dry standard cubic foot of exhaust gases.

Applicable Compliance Method:

If required, compliance with the mass emission limitation shall be determined according to test Methods 1 - 5, as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

b. Emission Limitation:

The baghouse shall achieve an outlet emission rate of not greater than 0.00525 grain of PM_{10} per dry standard cubic foot of exhaust gases.

Applicable Compliance Method:

If required, compliance with the mass emission limitation shall be determined according to test Methods 1 - 4, as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources", and test Method 201 as set forth in the most recent update of 40 CFR Part 51, Appendix M.

c. Emission Limitations:

PE shall not exceed 0.10 ton/yr.
PM_{10} emissions shall not exceed 0.10 ton/yr.

Applicable Compliance Method:

Compliance with the annual emission limitations shall be demonstrated using the following calculation based on the baghouse design and maximum operating schedule.

= 0.00525 gr/dscf x 1 lb/7000 gr x 500 cfm x 60 min/hour x 8760 hours/yr x 0.0005 ton/lb = 0.10 ton/yr

d. Emission Limitation:

Visible particulate emissions from the baghouse stack shall not exceed 0% opacity as a 3-minute average.

Applicable Compliance Method:

If required, compliance shall be determined according to test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

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
P801 - Fugitive VOC Emissions (Leaks)	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions shall not exceed 5.35 tons/yr. The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-09(DD) and 40 CFR Part 60, Subpart VV.
	OAC rule 3745-21-09(DD)	See Sections A.2.e and F.9.
	40 CFR Part 60, Subpart VV	See sections below with references to 40 CFR Part 60.

2. Additional Terms and Conditions

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

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

2.c [60.482-1(c)]

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

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

2.d [60.482-1(d)]
Equipment that is in vacuum service is excluded from the requirements of 60.482-2 to 60.482-10 if it is identified as required in 60.486(e)(5).

2.e The permittee shall employ best available control measures for the emissions unit for the purpose of ensuring compliance with the above-mentioned applicable requirements. The permittee has committed to implementing a Leak Detection and Repair (LDAR) program to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

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

2.f The annual allowable emission rate is based on the annual production of 75,000,000 gallons of 200 proof ethanol which is denatured (at 5%) with 3,750,000 gallons of gasoline (78,750,000 gallons total). Since the facility annual production rate is equivalent to the maximum capacity of emissions unit P003 (Fermentation and Beer Well), no operational restrictions, monitoring, recordkeeping or reporting requirements are necessary to ensure that this emissions unit does not exceed its annual allowable emission rates.

B. Operational Restrictions

1. [60.482-2(a)] Pumps in light liquid service.
   (1) Each pump in light liquid service shall be monitored monthly to detect leaks by the methods specified in 60.485(b), except as provided in 60.482-1(c) and paragraphs (d), (e), and (f) of this section.

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

2. [60.482-2(b)]
   (1) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

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

3. [60.482-2(c)]
   (1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 60.482-9.

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

4. [60.482-2(d)]
   Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of paragraph (a), *Provided* the following requirements are met:

   (1) Each dual mechanical seal system is --
      (i) Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure; or
      (ii) Equipment with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed vent system to a control device that complies with the requirements of 60.482-10; or
      (iii) Equipped with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere.

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

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

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

   (5) (i) Each sensor as described in paragraph (d)(3) is checked daily or is equipped with an audible alarm, and
      (ii) The owner or operator determines, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.

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

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

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

5. [60.482-2(e)]
Any pump that is designated, as described in 60.486(e)(1) and (2), for no detectable emission, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraphs (a), (c), and (d) of this section if the pump:

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

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

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

6. [60.482-2(f)]
If any pump is equipped with a closed vent system capable of capturing and transporting any leakage from the seal or seals to a process or to a fuel gas system or to a control device that complies with the requirements of 60.482-10, it is exempt from paragraphs (a) through (e) of this section.

7. [60.482-2(g)]
Any pump that is designated, as described in 60.486(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of paragraphs (a) and (d)(4) through (6) of this section if:

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

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

8. [60.482-2(h)]
Any pump that is located within the boundary of an unmanned plant site is exempt from

the weekly visual inspection requirement of paragraphs (a)(2) and (d)(4) of this section, and the daily requirements of paragraph (d)(5) of this section, provided that each pump is visually inspected as often as practicable and at least monthly.

9. [60.482-3(a)] Compressors.
Each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of VOC to the atmosphere, except as provided in 60.482-1(c) and paragraph (h) and (i) of this section.

10. [60.482-3(b)]
Each compressor seal system as required in paragraph (a) shall be:

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

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

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

11. [60.482-3(c)]
The barrier fluid system shall be in heavy liquid service or shall not be in VOC service.

12. [60.482-3(d)]
Each barrier fluid system as described in paragraph (a) shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both.

13. [60.482-3(e)]
(1) Each sensor as required in paragraph (d) shall be checked daily or shall be equipped with an audible alarm.

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

14. [60.482-3(f)]
If the sensor indicates failure of the seal system, the barrier system, or both based on the criterion determined under paragraph (e)(2), a leak is detected.

15. [60.482-3(g)]
(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 60.482-9.

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

Emissions Unit ID: **P801**

16. [60.482-3(h)]
A compressor is exempt from the requirements of paragraphs (a) and (b) of this section, if it is equipped with a closed vent system to capture and transport leakage from the compressor drive shaft back to a process or fuel gas system or to a control device that complies with the requirements of 60.482-10, except as provided in paragraph (i) of this section.

17. [60.482-3(i)]
Any compressor that is designated, as described in 60.486(e) (1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraphs (a)-(h) if the compressor:

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

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

18. [60.482-3(j)]
Any existing reciprocating compressor in a process unit which becomes an affected facility under provisions of 60.14 or 60.15 is exempt from 60.482(a), (b), (c), (d), (e), and (h), provided the owner or operator demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of paragraphs (a) through (e) and (h) of this section.

19. [60.482-4(a)] Pressure relief devices in gas/vapor service.
Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in 60.485(c).

20. [60.482-4(b)]
    (1) After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in 60.482-9.

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

21. [60.482-4(c)]
Any pressure relief device that is routed to a process or fuel gas system or equipped

with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in 60.482-10 is exempted from the requirements of paragraphs (a) and (b) of this section.

22. [60.482-4(d)]
    (1) Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the requirements of paragraphs (a) and (b) of this section, provided the owner or operator complies with the requirements in paragraph (d)(2) of this section.

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

23. [60.482-5(a)] Sampling connection systems.
    Each sampling connection system shall be equipped with a closed-purged, closed-loop, or closed-vent system, except as provided in 60.482-1(c). Gases displaced during filling of the sample container are not required to be collected or captured.

24. [60.482-5(b)]
    Each closed-purge, closed-loop, or closed-vent system as required in paragraph (a) of this section shall comply with the requirements specified in paragraphs (b)(1) through (4) of this section:

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

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

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

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

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

wastewater streams;

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

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

25. [60.482-5(c)]
In situ sampling systems and sampling systems without purges are exempt from the requirements of paragraphs (a) and (b) of this section.

26. [60.482-6(a)] Open-ended valves or lines.

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

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

27. [60.482-6(b)]
Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.

28. [60.482-6(c)]
When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with paragraph (a) at all other times.

29. [60.482-6(d)]
Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of paragraphs (a), (b) and (c) of this section.

30. [60.482-6(e)]
Open-ended valves or lines containing materials which would autocatalytically

polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in paragraphs (a) through (c) of this section are exempt from the requirements of paragraphs (a) through (c) of this section.

31. [60.482-7(a)] Valves in gas/vapor service and in light liquid service.
Each valve shall be monitored monthly to detect leaks by the methods specified in 60.485(b) and shall comply with paragraphs (b) through (e), except as provided in paragraphs (f), (g), and (h), 60.483-1, 2, and 60.482-1(c).

32. [60.482-7(b)]
If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

33. [60.482-7(c)]
    (1) Any valve for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected.

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

34. [60.482-7(d)]
    (1) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 60.482-9.

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

35. [60.482-7(e)]
First attempts at repair include, but are not limited to, the following best practices where practicable:

    (1) Tightening of bonnet bolts;

    (2) Replacement of bonnet bolts;

    (3) Tightening of packing gland nuts;

(4) Injection of lubricant into lubricated packing.

36. [60.482-7(f)]
Any valve that is designated, as described in 60.486(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraph (a) if the valve:

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

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

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

37. [60.482-7(g)]
Any valve that is designated, as described in 60.486(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of paragraph (a) if:

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

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

38. [60.482-7(h)]
Any valve that is designated, as described in 60.486(f)(2), as a difficult-to-monitor valve is exempt from the requirements of paragraph (a) if:

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

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

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

39. [60.482-8(a)] Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors.

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

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

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

40. [60.482-8(b)]
If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

41. [60.482-8(c)]
(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 60.482-9.

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

42. [60.482-8(d)]
First attempts at repair include, but are not limited to, the best practices described under 60.482-7(e).

43. [60.482-9(a)] Delay of repair.
Delay of repair of equipment for which leaks have been detected will be allowed if repair within 15 days is technically infeasible without a process unit shutdown. Repair of this equipment shall occur before the end of the next process unit shutdown.

44. [60.482-9(b)]
Delay of repair of equipment will be allowed for equipment which is isolated from the process and which does not remain in VOC service.

45. [60.482-9(c)]
Delay of repair for valves will be allowed if:

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

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

46. [60.482-9(d)]
Delay of repair for pumps will be allowed if:

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

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

47. [60.482-9(e)]
Delay of repair beyond a process unit shutdown will be allowed for a valve, if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next process unit shutdown will not be allowed unless the next process unit shutdown occurs sooner than 6 months after the first process unit shutdown.

48. [60.482-10(a)] Closed vent systems and control devices.
Owners or operators of closed vent systems and control devices used to comply with provisions of this subpart shall comply with the provisions of this section.

49. [60.482-10(b)]

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

50. [60.482-10(c)]
Enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 °°C.

51. [60.482-10(d)]
Flares used to comply with this subpart shall comply with the requirements of 60.18.

52. [60.482-10(e)]
Owners or operators of control devices used to comply with the provisions of this subpart shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs.

53. [60.482-10(f)]
Except as provided in paragraphs (i) through (k) of this section, each closed vent system shall be inspected according to the procedures and schedule specified in paragraphs (f)(1) and (f)(2) of this section.

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

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

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

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

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

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

54. [60.482-10(g)]
Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practicable except as provided in paragraph (h) of this section.

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

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

55. [60.482-10(h)]
Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown.

56. [60.482-10(i)]
If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of paragraphs (f)(1)(i) and (f)(2) of this section.

57. [60.482-10(j)]
Any parts of the closed vent system that are designated, as described in paragraph (l)(1) of this section, as unsafe to inspect are exempt from the inspection requirements of paragraphs (f)(1)(i) and (f)(2) of this section if they comply with the requirements specified in paragraphs (j)(1) and (j)(2) of this section:

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

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

58. [60.482-10(k)]
Any parts of the closed vent system that are designated, as described in paragraph (l)(2) of this section, as difficult to inspect are exempt from the inspection requirements of paragraphs (f)(1)(i) and (f)(2) of this section if they comply with the requirements specified in paragraphs (k)(1) through (k)(3) of this section:

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

(2) The process unit within which the closed vent system is located becomes an

affected facility through 60.14 or 60.15, or the owner or operator designates less than 3.0 percent of the total number of closed vent system equipment as difficult to inspect; and

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

59. [60.482-10(l)]
The owner or operator shall record the information specified in paragraphs (l)(1) through (l)(5) of this section.

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

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

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

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

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

60. [60.482-10(m)]
Closed vent systems and control devices used to comply with provisions of this subpart shall be operated at all times when emissions may be vented to them.

61. [60.483-1(a)] Alternative standards for valves -- allowable percentage of valves leaking.
An owner or operator may elect to comply with an allowable percentage of valves leaking of equal to or less than 2.0 percent.

62. [60.483-1(b)]
The following requirements shall be met if an owner or operator wishes to comply with an allowable percentage of valves leaking:

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

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

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

63. [60.483-1(c)]
Performance tests shall be conducted in the following manner:

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

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

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

64. [60.483-1(d)]
Owners and operators who elect to comply with this alternative standard shall not have an affected facility with a leak percentage greater than 2.0 percent.

65. [60.483-2(a)] Alternative standards for valves -- skip period leak detection and repair.
(1) An owner or operator may elect to comply with one of the alternative work practices specified in paragraphs (b)(2) and (3) of this section.

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

66. [60.483-2(b)]
(1) An owner or operator shall comply initially with the requirements for valves in

gas/vapor service and valves in light liquid service, as described in 60.482-7.

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

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

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

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

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

C. Monitoring and/or Recordkeeping Requirements

1. [60.486] Recordkeeping requirements.
   (1) Each owner or operator subject to the provisions of this subpart shall comply with the recordkeeping requirements of this section.
   (2) An owner or operator of more than one affected facility subject to the provisions of this subpart may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility.

2. [60.486(b)]
   When each leak is detected as specified in 60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, the following requirements apply:

   (1) A weatherproof and readily visible identification, marked with the equipment

identification number, shall be attached to the leaking equipment.

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

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

3. [60.486(c)]
When each leak is detected as specified in 60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, the following information shall be recorded in a log and shall be kept for 2 years in a readily accessible location:

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

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

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

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

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

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

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

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

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

4. [60.486(d)]
The following information pertaining to the design requirements for closed vent systems and control devices described in 60.482-10 shall be recorded and kept in a readily accessible location:

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

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

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

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

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

5. [60.486(e)]
The following information pertaining to all equipment subject to the requirements in 60.482-1 to 60.482-10 shall be recorded in a log that is kept in a readily accessible location:

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

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

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

operator.

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

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

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

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

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

6. [60.486(f)]
The following information pertaining to all valves subject to the requirements of 60.482-7(g) and (h) and to all pumps subject to the requirements of 60.482-2(g) shall be recorded in a log that is kept in a readily accessible location:

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

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

7. [60.486(g)]
The following information shall be recorded for valves complying with 60.483-2:

(1) A schedule of monitoring.

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

8. [60.486(h)]

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

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

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

9. [60.486(i)]
The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in 60.480(d):

(1) An analysis demonstrating the design capacity of the affected facility,

(2) A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol, and

(3) An analysis demonstrating that equipment is not in VOC service.

10. [60.486(j)]
Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location.

11. [60.486(k)]
The provisions of 60.7(b) and (d) do not apply to affected facilities subject to this subpart.

D. Reporting Requirements

1. [60.487(a)] Reporting requirements.
Each owner or operator subject to the provisions of this subpart shall submit semiannual reports to the Administrator beginning six months after the initial startup date.

2. [60.487(b)]
The initial semiannual report to the Administrator shall include the following

information:

(1) Process unit identification.

(2) Number of valves subject to the requirements of 60.482-7, excluding those valves designated for no detectable emissions under the provisions of 60.482-7(f).

(3) Number of pumps subject to the requirements of 60.482-2, excluding those pumps designated for no detectable emissions under the provisions of 60.482-2(e) and those pumps complying with 60.482-2(f).

(4) Number of compressors subject to the requirements of 60.482-3, excluding those compressors designated for no detectable emissions under the provisions of 60.482-3(i) and those compressors complying with 60.482-3(h).

3. [60.487(c)]
All semiannual reports to the Administrator shall include the following information, summarized from the information in 60.486:

(1) Process unit identification.

(2) For each month during the semiannual reporting period,

(i) Number of valves for which leaks were detected as described in 60.482(7)(b) or 60.483-2,

(ii) Number of valves for which leaks were not repaired as required in 60.482-7(d)(1),

(iii) Number of pumps for which leaks were detected as described in 60.482-2(b) and (d)(6)(i),

(iv) Number of pumps for which leaks were not repaired as required in 60.482-2(c)(1) and (d)(6)(ii),

(v) Number of compressors for which leaks were detected as described in

60.482-3(f),

(vi) Number of compressors for which leaks were not repaired as required in 60.482-3(g)(1), and

(vii) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible.

(3) Dates of process unit shutdowns which occurred within the semiannual reporting period.

(4) Revisions to items reported according to paragraph (b) if changes have occurred since the initial report or subsequent revisions to the initial report.

4. [60.487(d)]
An owner or operator electing to comply with the provisions of 60.483-1 or 60.483-2 shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions.

5. [60.487(e)]
An owner or operator shall report the results of all performance tests in accordance with 60.8 of the General Provisions. The provisions of 60.8(d) do not apply to affected facilities subject to the provisions of this subpart except that an owner or operator must notify the Administrator of the schedule for the initial performance tests at least 30 days before the initial performance tests.

6. [60.487(f)]
The requirements of paragraphs (a) through (c) of this section remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with the requirements of paragraphs (a) through (c) of this section, provided that they comply with the requirements established by the State.

E. Testing Requirements

1. [60.485(a)] Test methods and procedures.
In conducting the performance tests required in 60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in 60.8(b).

2. [60.485(b)]
The owner or operator shall determine compliance with the standards in 60.482, 60.483, and 60.484 as follows:

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

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

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

3. [60.485(c)]
The owner or operator shall determine compliance with the no detectable emission standards in 60.482-2(e), 60.482-3(i), 60.482-4, 60.482-7(f), and 60.482-10(e) as follows:

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

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

4. [60.485(d)]
The owner or operator shall test each piece of equipment unless he demonstrates that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used:

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

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

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

5 [60.485(e)]
The owner or operator shall demonstrate that an equipment is in light liquid service by showing that all the following conditions apply:

(1) The vapor pressure of one or more of the components is greater than 0.3 kPa at 20 °°C (1.2 in. H2O at 68 °°F). Standard reference texts or ASTM D2879-83, 96, or 97 (incorporated by reference -- see 60.17) shall be used to determine the vapor pressures.

(2) The total concentration of the pure components having a vapor pressure greater than 0.3 kPa at 20 °°C (1.2 in. H2O at 68 °°F) is equal to or greater than 20 percent by weight.

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

6. [60.485(f)]
Samples used in conjunction with paragraphs (d), (e), and (g) of this section shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare.

7. [60.485(g)]
The owner or operator shall determine compliance with the standards of flares as follows:

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

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

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

Where:

Vmax = Maximum permitted velocity, m/sec (ft/sec)

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

K1 = 8.706 m/sec (metric units) = 28.56 ft/sec (English units)

K2 = 0.7084 m\4\/(MJ-sec) (metric units) = 0.087 ft\4\/(Btu-sec) (English units)

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

Where:

K = Conversion constant, 1.740 × 10\7\ (g-mole)(MJ)/ (ppm-scm-kcal) (metric units) = 4.674 × 10\8\ [(g-mole)(Btu)/(ppm-scf-kcal)] (English units)

Ci = Concentration of sample component "i," ppm

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

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

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

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

Emissions Unit ID: **P801**

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

   Emission Limitation:

   VOC emissions shall not exceed 5.35 tons/yr.

Applicable Compliance Method:

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

F. Miscellaneous Requirements

1. [60.484(a)] Equivalence of means of emission limitation.
Each owner or operator subject to the provisions of this subpart may apply to the Administrator for determination of equivalence for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in this subpart.

2. [60.484(b)]
Determination of equivalence to the equipment, design, and operational requirements of this subpart will be evaluated by the following guidelines:

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

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

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

3. [60.484(c)]
Determination of equivalence to the required work practices in this subpart will be evaluated by the following guidelines:

   (1) Each owner or operator applying for a determination of equivalence shall be

responsible for collecting and verifying test data to demonstrate equivalence of an equivalent means of emission limitation.

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

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

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

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

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

4. [60.484(d)]
An owner or operator may offer a unique approach to demonstrate the equivalence of any equivalent means of emission limitation.

5. [60.484(e)]
(1) After a request for determination of equivalence is received, the Administrator will publish a notice in the Federal Register and provide the opportunity for public hearing if the Administrator judges that the request may be approved.

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

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

6. [60.484(f)]
   (1) Manufacturers of equipment used to control equipment leaks of VOC may apply to the Administrator for determination of equivalence for any equivalent means of emission limitation that achieves a reduction in emissions of VOC achieved by the equipment, design, and operational requirements of this subpart.

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

7. [60.488(a)] Reconstruction.
   For the purposes of this subpart:

   The cost of the following frequently replaced components of the facility shall not be considered in calculating either the "fixed capital cost of the new components" or the "fixed capital costs that would be required to construct a comparable new facility" under 60.15: pump seals, nuts and bolts, rupture disks, and packings.

8. [60.488(b)]
   Under 60.15, the "fixed capital cost of new components" includes the fixed capital cost of all depreciable components (except components specified in 60.488 (a)) which are or will be replaced pursuant to all continuous programs of component replacement which are commenced within any 2-year period following the applicability date for the appropriate subpart. (See the "Applicability and designation of affected facility" section of the appropriate subpart.) For purposes of this paragraph, "commenced" means that an owner or operator has undertaken a continuous program of component replacement or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of component replacement.

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

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	
P901 - Grain Receiving, Transferring, and Conveying (Rail) controlled with a Baghouse	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07 (B)
		OAC rule 3745-17-08(A)
		OAC rule 3745-17-07(A) OAC rule 3745-17-11(B)

40 CFR Part 60, Subpart DD	Applicable Emissions Limitations/Control Measures Stack Emissions: The baghouse shall achieve an outlet emission rate of not greater than 0.00525 grain of particulate emissions per dry standard cubic foot of exhaust gases. The baghouse shall achieve an outlet emission rate of not greater than 0.00525 grain of particulate matter less than 10 microns in diameter (PM_{10}) per dry standard cubic foot of exhaust gases. Particulate emissions (PE) from the baghouse stack shall not exceed 0.99 ton/yr. PM_{10} emissions from the baghouse stack shall not exceed 0.99 ton/yr. Visible particulate emissions from the baghouse stack shall not exceed 0% opacity as a 3-minute average. Fugitive Emissions: Fugitive PE shall not exceed 4.04 tons/yr. Fugitive PM_{10} emissions shall not exceed 0.99 ton/yr.	Visible fugitive particulate emissions shall not exceed 5% opacity, as a 6-minute average, from any rail unloading. Visible fugitive particulate emissions shall not exceed 0% opacity, as a 6-minute average, from any grain handling operations. See Sections A.2.a and A.2.b. See Section A.2.c. See Section A.2.d. The emission limitations specified by these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3). See Section A.2.e.

Emissions Unit ID: **P901**

2. Additional Terms and Conditions

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

i. for grain receiving, the use of an enclosed hopper with choke flow; and

ii. for transferring/conveying, the use of total enclosures and a bucket elevator vented to a baghouse.

2.b The annual allowable emission rate is based on the annual production of 75,000,000 gallons of 200 proof ethanol which is denatured (at 5%) with 3,750,000 gallons of gasoline (78,750,000 gallons total). Since the facility annual production rate is equivalent to the maximum capacity of emissions unit P003 (Fermentation and Beer Well), no operational restrictions, monitoring, recordkeeping or reporting requirements are necessary to ensure that this emissions unit does not exceed its annual allowable emission rates.

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

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

2.e 40 CFR Part 60, Subpart DD (Standards of Performance for Grain Elevators), is applicable to grain elevators with a permanent grain storage capacity greater than 2.5 million U.S. bushels. The permanent grain storage capacity of this facility is 432,000 bushels. Therefore, 40 CFR Part 60, Subpart DD, is not applicable.

B. Operational Restrictions

None.

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 baghouse stack serving this emissions unit. The presence or absence of any visible

emissions shall be noted in an operations log, as well as the date and time the daily check was performed. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

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

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

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

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

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

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

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

D. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse stack serving this emissions unit (b) identify all days during which any visible fugitive particulate emissions were observed from the egress points serving this emissions unit (c) describe any corrective actions taken to eliminate the visible particulate emissions from the baghouse stack and (d) describe any corrective actions taken to eliminate the visible fugitive particulate emissions from the egress points serving this emissions unit. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

Emissions Unit ID: **P901**

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. Emission Limitation:

      The baghouse shall achieve an outlet emission rate of not greater than 0.00525 grain of particulate emissions per dry standard cubic foot of exhaust gases.

      Applicable Compliance Method:

      If required, compliance with the mass emission limitation shall be determined according to test Methods 1 - 5, as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

   b. Emission Limitation:

      The baghouse shall achieve an outlet emission rate of not greater than 0.00525 grain of PM_{10} per dry standard cubic foot of exhaust gases.

      Applicable Compliance Method:

      If required, compliance with the mass emission limitation shall be determined according to test Methods 1 - 4, as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources", and test Method 201 as set forth in the most recent update of 40 CFR Part 51, Appendix M.

   c. Emission Limitations:

      PE from the baghouse stack shall not exceed 0.99 ton/yr.
      PM_{10} emissions from the baghouse stack shall not exceed 0.99 ton/yr.

Emissions Unit ID: **P901**

Applicable Compliance Method:

Compliance with the annual emission limitations shall be demonstrated using the following calculation based on the baghouse design and maximum operating schedule.

= 0.00525 gr/dscf x 1 lb/7000 gr x 5000 cfm x 60 min/hour x 8760 hours/yr x 0.0005 ton/lb = 0.99 ton/yr

d. Emission Limitations:

Visible particulate emissions from the baghouse stack shall not exceed 0% opacity as a 3-minute average.

Visible fugitive particulate emissions shall not exceed 5% opacity, as a 6-minute average, from any rail unloading.

Visible fugitive particulate emissions shall not exceed 0% opacity, as a 6-minute average, from any grain handling operations.

Applicable Compliance Method:

If required, compliance shall be determined according to test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

e. Emission Limitation:

Fugitive PE shall not exceed 4.04 tons/yr.

Applicable Compliance Method:

Compliance with the annual emission limitation may be demonstrated by the following calculation using the AP-42 emission factor (Section 9.9.1, March 2003) and the maximum grain throughput.

= (0.032 lb/ton x 840,000 tons/yr x 0.3 (70% Control)) x 0.0005 ton/lb
= 4.04 tons/yr

f. Emission Limitation:

Fugitive PM_{10} emissions shall not exceed 0.99 ton/yr.

Applicable Compliance Method:

Compliance with the annual emission limitation may be demonstrated by the following calculation using the AP-42 emission factor (Section 9.9.1, March 2003) and the maximum grain throughput.

= (0.0078 lb/ton x 840,000 tons/yr x 0.3 (70% Control)) x 0.0005 ton/lb
= 0.99 ton/yr

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	
P902 - Grain Receiving, Transferring, and Conveying (Truck) controlled with a Baghouse	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-31-05(C)
		OAC rule 3745-17-07 (B)
		OAC rule 3745-17-08(A)
		OAC rule 3745-17-07(A) OAC rule 3745-17-11(B)

	Applicable Emissions Limitations/Control Measures	
		opacity, as a 6-minute average, from any grain handling operations.
40 CFR Part 60, Subpart DD	Stack Emissions: The baghouse shall achieve an outlet emission rate of not greater than 0.003 grain of particulate emissions per dry standard cubic foot of exhaust gases. The baghouse shall achieve an outlet emission rate of not greater than 0.003 grain of particulate matter less than 10 microns in diameter (PM_{10}) per dry standard cubic foot of exhaust gases. Visible particulate emissions from the baghouse stack shall not exceed 0% opacity as a 3-minute average. Fugitive Emissions: Fugitive PE shall not exceed 0.32 ton/yr. Fugitive PM_{10} emissions shall not exceed 0.08 ton/yr. Visible fugitive particulate emissions shall not exceed 5% opacity, as a 6-minute average, from any truck unloading. Visible fugitive particulate emissions shall not exceed 0%	See Section A.2.a. Particulate emissions (PE) from the baghouse stack shall not exceed 8.55 lbs/day (0.36 lb/hr avg.) and 1.57 tons/yr. PM_{10} emissions from the baghouse stack shall not exceed 8.55 lbs/day (0.36 lb/hr avg.) and 1.57 tons/yr. See Section A.2.b. See Section A.2.c. The emission limitations specified by these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3). See Section A.2.d.

Emissions Unit ID: **P902**

2. Additional Terms and Conditions

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

i. for grain receiving, the use of a building enclosure and receiving hopper vented to a baghouse; and

ii. for transferring/conveying, the use of total enclosures and a bucket elevator vented to a baghouse.

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

2.d 40 CFR Part 60, Subpart DD (Standards of Performance for Grain Elevators), is applicable to grain elevators with a permanent grain storage capacity greater than 2.5 million U.S. bushels. The permanent grain storage capacity of this facility is 432,000 bushels. Therefore, 40 CFR Part 60, Subpart DD, is not applicable.

B. Operational Restrictions

1. The maximum grain throughput for this emissions unit shall not exceed 9,600 tons daily (equivalent to 16 hours operation at maximum capacity) and 300,000 tons annually.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain daily (24-hour) and annual records of the grain throughput for this emissions unit.

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

a. the color of the emissions;

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

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

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

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

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

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

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

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily and/or annual grain throughput limitation. These reports shall be submitted within 30 days after the deviation occurs.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse stack serving this emissions unit (b) identify all days during which any visible fugitive particulate emissions were observed from the egress points serving this emissions unit (c) describe any corrective actions taken to eliminate the visible particulate emissions from the baghouse stack and (d) describe any corrective actions taken to eliminate the visible fugitive particulate emissions from the egress points serving this emissions unit. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

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. Emission Limitation:

      The baghouse shall achieve an outlet emission rate of not greater than 0.003 grain of particulate emissions per dry standard cubic foot of exhaust gases.

      Applicable Compliance Method:

      Compliance shall be demonstrated based on emission testing performed in accordance with Section E.2.

   b. Emission Limitation:

      The baghouse shall achieve an outlet emission rate of not greater than 0.003 grain of PM_{10} per dry standard cubic foot of exhaust gases.

      Applicable Compliance Method:

      If required, compliance with the mass emission limitation shall be determined according to test Methods 1 - 4, as set forth in the "Appendix on Test Methods"

in 40 CFR Part 60 "Standards of Performance for New Stationary Sources", and test Method 201 as set forth in the most recent update of 40 CFR Part 51, Appendix M.

c. Emission Limitations:

PE from the baghouse stack shall not exceed 8.55 lbs/day (0.36 lb/hr avg.) and 1.57 tons/yr.
PM_{10} emissions from the baghouse stack shall not exceed 8.55 lbs/day (0.36 lb/hr avg.) and 1.57 tons/yr.

Applicable Compliance Methods:

Compliance with the daily emission limitations may be demonstrated by the following calculation using the AP-42 emission factor (Section 9.9.1, March 2003) and the maximum grain throughput limit. (For purposes of calculating emissions from the baghouse stack, all PE has been assumed to be PM_{10}.)

PE/PM_{10} = Grain Receiving + Grain Handling
= ((0.035 lb/ton x 9,600 tons/day x 0.8 (80% capture)) + (0.061 lb/ton x 9,600 tons/day)) x 0.01 (99% control)
= 8.55 lbs/day (0.36 lb/hr avg.)

Compliance with the annual emission limitations may be demonstrated by the following calculation using the maximum daily emission rate calculated above and the maximum operating schedule of 365 days per year.

PE/PM_{10} = 8.55 lbs/day x 365 days/yr x 0.0005 ton/lb
= 1.57 tons/yr

d. Emission Limitations:

Visible particulate emissions from the baghouse stack shall not exceed 0% opacity as a 3-minute average.

Visible fugitive particulate emissions shall not exceed 5% opacity, as a 6-minute average, from any truck unloading.

Visible fugitive particulate emissions shall not exceed 0% opacity, as a 6-minute average, from any grain handling operations.

Applicable Compliance Method:

Compliance shall be demonstrated based on emission testing performed in accordance with Section E.2.

e. Emission Limitation:

Fugitive PE shall not exceed 0.32 ton/yr.

Applicable Compliance Method:

Compliance with the annual emission limitation may be demonstrated by the following calculation using the AP-42 emission factor (Section 9.9.1, March 2003) and the maximum grain throughput limit.

Fugitive PE = 0.035 lb/ton x 300,000 tons/yr x 0.2 (80% capture) x 0.3 (70% control) x 0.0005 ton/lb
= 0.32 ton/yr

f. Emission Limitation:

Fugitive PM_{10} emissions shall not exceed 0.08 ton/yr.

Applicable Compliance Method:

Compliance with the annual emission limitation may be demonstrated by the following calculation using the AP-42 emission factor (Section 9.9.1, March 2003) and the maximum grain throughput limit.

Fugitive PM_{10} = 0.0078 lb/ton x 300,000 tons/yr x 0.2 (80% capture) x 0.3 (70% control) x 0.0005 ton/lb= 0.08 ton/yr

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

a. The emission testing shall be conducted 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 start-up of the emissions unit.

b. The emission testing shall be conducted to demonstrate compliance with the

outlet particulate emissions rate and opacity limitations.

c. The following test method(s) shall be employed to demonstrate compliance with the above emission limitations: for particulate emissions, Methods 1 through 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.

d. The testing shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

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, Southeast District Office. 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, Southeast District Office refusal to accept the results of the emission test(s).

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

g. A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office 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, Southeast District Office.

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	
P903 - Grain Storage, Cleaning and Reclaim controlled with Baghouses	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07 (B)
		OAC rule 3745-17-08(A)
		OAC rule 3745-17-07(A) OAC rule 3745-17-11(B)
		40 CFR Part 60, Subpart DD

Applicable Emissions Limitations/Control Measures	
Stack Emissions: The baghouses shall achieve an outlet emission rate of not greater than 0.00525 grain of particulate emissions per dry standard cubic foot of exhaust gases.	Visible fugitive particulate emissions shall not exceed 5% opacity, as a 6-minute average.
The baghouse shall achieve an outlet emission rate of not greater than 0.00525 grain of particulate matter less than 10 microns in diameter (PM_{10}) per dry standard cubic foot of exhaust gases.	See Sections A.2.a and A.2.b.
Particulate emissions (PE) from the baghouse stacks shall not exceed 2.17 tons/yr total.	See Section A.2.c.
PM_{10} emissions from the baghouse stacks shall not exceed 2.17 tons/yr total.	See Section A.2.d.
Visible particulate emissions from the baghouse stacks shall not exceed 0% opacity as a 3-minute average.	The emission limitations specified by these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
Fugitive Emissions: Fugitive PE shall not exceed 1.29 tons/yr.	See Section A.2.e.
Fugitive PM_{10} emissions shall not exceed 0.72 ton/yr.	

Emissions Unit ID: **P903**

2. Additional Terms and Conditions

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

i. for grain storage, the use of baghouses;

ii. for grain cleaning/scalping, use of an enclosure; and

iii. for grain reclaim, the use of total enclosures vented to a baghouse.

2.b The annual allowable emission rate is based on the annual production of 75,000,000 gallons of 200 proof ethanol which is denatured (at 5%) with 3,750,000 gallons of gasoline (78,750,000 gallons total). Since the facility annual production rate is equivalent to the maximum capacity of emissions unit P003 (Fermentation and Beer Well), no operational restrictions, monitoring, recordkeeping or reporting requirements are necessary to ensure that this emissions unit does not exceed its annual allowable emission rates.

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

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

2.e 40 CFR Part 60, Subpart DD (Standards of Performance for Grain Elevators), is applicable to grain elevators with a permanent grain storage capacity greater than 2.5 million U.S. bushels. The permanent grain storage capacity of this facility is 432,000 bushels. Therefore, 40 CFR Part 60, Subpart DD, is not applicable.

B. Operational Restrictions

None.

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 baghouse stacks serving this emissions unit. The presence or absence of any visible

emissions shall be noted in an operations log, as well as the date and time the daily check was performed. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

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

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

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

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

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

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

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

D. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse stack(s) serving this emissions unit (b) identify all days during which any visible fugitive particulate emissions were observed from the egress points serving this emissions unit (c) describe any corrective actions taken to eliminate the visible particulate emissions from the baghouse stack(s) and (d) describe any corrective actions taken to eliminate the visible fugitive particulate emissions from the egress points serving this emissions unit. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

Emissions Unit ID: **P903**

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. Emission Limitation:

      The baghouses shall achieve an outlet emission rate of not greater than 0.00525 grain of particulate emissions per dry standard cubic foot of exhaust gases.

      Applicable Compliance Method:

      If required, compliance with the mass emission limitation shall be determined according to test Methods 1 - 5, as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

   b. Emission Limitation:

      The baghouse shall achieve an outlet emission rate of not greater than 0.00525 grain of PM_{10} per dry standard cubic foot of exhaust gases.

      Applicable Compliance Method:

      If required, compliance with the mass emission limitation shall be determined according to test Methods 1 - 4, as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources", and test Method 201 as set forth in the most recent update of 40 CFR Part 51, Appendix M.

   c. Emission Limitations:

      PE from the baghouse stacks shall not exceed 2.17 tons/yr total.
      PM_{10} emissions from the baghouse stacks shall not exceed 2.17 tons/yr total.

      Applicable Compliance Method:

      Compliance with the annual emission limitations shall be demonstrated using the following calculation based on the baghouse designs and maximum operating schedule.

Emissions Unit ID: **P903**

= 0.00525 gr/dscf x 1 lb/7000 gr x 11000 cfm (combined total) x 60 min/hour x 8760 hours/yr x 0.0005 ton/lb = 2.17 tons/yr total

d. Emission Limitations:

Visible particulate emissions from the baghouse stacks shall not exceed 0% opacity as a 3-minute average.

Visible fugitive particulate emissions shall not exceed 5% opacity, as a 6-minute average.

Applicable Compliance Method:

If required, compliance shall be determined according to test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

e. Emission Limitation:

Fugitive PE shall not exceed 1.29 tons/yr.

Applicable Compliance Method:

Compliance with the annual emission limitation may be demonstrated by the following calculation using the AP-42 emission factor (Section 9.9.1, March 2003) and the maximum grain throughput.

= 0.061 lb/ton x 840,000 tons/yr x 0.05 (95% Control) x 0.0005 ton/lb
= 1.29 tons/yr

f. Emission Limitation:

Fugitive PM_{10} emissions shall not exceed 0.72 ton/yr.

Applicable Compliance Method:

Compliance with the annual emission limitation may be demonstrated by the following calculation using the AP-42 emission factor (Section 9.9.1, March 2003) and the maximum grain throughput.

= 0.034 lb/ton x 840,000 tons/yr x 0.05 (95% Control) x 0.0005 ton/lb
= 0.72 ton/yr

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	
P904 - DDGS Transfer, Storage and Reclaim controlled with a Baghouse	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07 (B)
		OAC rule 3745-17-08(A)
		OAC rule 3745-17-07(A) OAC rule 3745-17-11(B)

Applicable Emissions Limitations/Control Measures	
Stack Emissions: The baghouse shall achieve an outlet emission rate of not greater than 0.00525 grain of particulate emissions per dry standard cubic foot of exhaust gases.	Visible fugitive particulate emissions shall not exceed 5% opacity, as a 6-minute average, from any DDGS handling/storage operations.
The baghouse shall achieve an outlet emission rate of not greater than 0.00525 grain of particulate matter less than 10 microns in diameter (PM_{10}) per dry standard cubic foot of exhaust gases.	See Sections A.2.a and A.2.b. See Section A.2.c. See Section A.2.d.
Particulate emissions (PE) from the baghouse stack shall not exceed 0.20 ton/yr. PM_{10} emissions from the baghouse stack shall not exceed 0.20 ton/yr.	The emission limitations specified by these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
Visible particulate emissions from the baghouse stack shall not exceed 0% opacity as a 3-minute average.	
Fugitive Emissions: Fugitive PE shall not exceed 1.58 tons/yr.	
Fugitive PM_{10} emissions shall not exceed 0.36 ton/yr.	

Emissions Unit ID: **P904**

2. Additional Terms and Conditions

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

i. for DDGS storage, the use of a building enclosure; and

ii. for DDGS transferring/conveying, the use of enclosures and a bucket elevator vented to a baghouse.

2.b The annual allowable emission rate is based on the annual production of 75,000,000 gallons of 200 proof ethanol which is denatured (at 5%) with 3,750,000 gallons of gasoline (78,750,000 gallons total). Since the facility annual production rate is equivalent to the maximum capacity of emissions unit P003 (Fermentation and Beer Well), no operational restrictions, monitoring, recordkeeping or reporting requirements are necessary to ensure that this emissions unit does not exceed its annual allowable emission rates.

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

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

B. Operational Restrictions

None.

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 baghouse stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log, as well as the date and time the daily check was performed. If visible emissions are observed, the permittee shall also note the following in the operations log:

   a. the color of the emissions;

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

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

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

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

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

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

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

D. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse stack serving this emissions unit (b) identify all days during which any visible fugitive particulate emissions were observed from the egress points serving this emissions unit (c) describe any corrective actions taken to eliminate the visible particulate emissions from the baghouse stack and (d) describe any corrective actions taken to eliminate the visible fugitive particulate emissions from the egress points serving this emissions unit. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

Emissions Unit ID: **P904**

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. Emission Limitation:

   The baghouse shall achieve an outlet emission rate of not greater than 0.00525 grain of particulate emissions per dry standard cubic foot of exhaust gases.

   Applicable Compliance Method:

   If required, compliance with the mass emission limitation shall be determined according to test Methods 1 - 5, as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

   b. Emission Limitation:

   The baghouse shall achieve an outlet emission rate of not greater than 0.00525 grain of PM_{10} per dry standard cubic foot of exhaust gases.

   Applicable Compliance Method:

   If required, compliance with the mass emission limitation shall be determined according to test Methods 1 - 4, as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources", and test Method 201 as set forth in the most recent update of 40 CFR Part 51, Appendix M.

   c. Emission Limitations:

   PE from the baghouse stack shall not exceed 0.20 ton/yr.
   PM_{10} emissions from the baghouse stack shall not exceed 0.20 ton/yr.

   Applicable Compliance Method:

   Compliance with the annual emission limitations shall be demonstrated using the following calculation based on the baghouse design and maximum operating schedule.

   = 0.00525 gr/dscf x 1 lb/7000 gr x 1000 cfm x 60 min/hour x 8760 hours/yr x

0.0005 ton/lb = 0.20 ton/yr

d. Emission Limitations:

Visible particulate emissions from the baghouse stack shall not exceed 0% opacity as a 3-minute average.

Visible fugitive particulate emissions shall not exceed 5% opacity, as a 6-minute average, from any DDGS handling/storage operations.

Applicable Compliance Method:

If required, compliance shall be determined according to test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

e. Emission Limitation:

Fugitive PE shall not exceed 1.58 tons/yr.

Applicable Compliance Method:

Compliance with the annual emission limitation may be demonstrated by the following calculation using the AP-42 emission factor (Section 9.9.1, March 2003) and the maximum DDGS throughput.

= (2 x 0.035 lb/ton x 300,000 tons/yr x 0.15 (85% Control)) x 0.0005 ton/lb
= 1.58 tons/yr

f. Emission Limitation:

Fugitive PM_{10} emissions shall not exceed 0.36 ton/yr.

Applicable Compliance Method:

Compliance with the annual emission limitation may be demonstrated by the following calculation using the AP-42 emission factor (Section 9.9.1, March 2003) and the maximum DDGS throughput.

= (2 x 0.0078 lb/ton x 300,000 tons/yr x 0.15 (85% Control)) x 0.0005 ton/lb

= 0.36 ton/yr

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	
P905 - DDGS Loadout controlled with a Baghouse	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07 (B)
		OAC rule 3745-17-08(A)
		OAC rule 3745-17-07(A) OAC rule 3745-17-11(B)

Applicable Emissions Limitations/Control Measures	
Stack Emissions: The baghouse shall achieve an outlet emission rate of not greater than 0.00525 grain of particulate emissions per dry standard cubic foot of exhaust gases.	Visible fugitive particulate emissions shall not exceed 5% opacity, as a 6-minute average, from DDGS loadout. See Sections A.2.a and A.2.b. See Section A.2.c. See Section A.2.d.
The baghouse shall achieve an outlet emission rate of not greater than 0.00525 grain of particulate matter less than 10 microns in diameter (PM_{10}) per dry standard cubic foot of exhaust gases.	The emission limitations specified by these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
Particulate emissions (PE) from the baghouse stack shall not exceed 0.28 ton/yr.	
PM_{10} emissions from the baghouse stack shall not exceed 0.28 ton/yr.	
Visible particulate emissions from the baghouse stack shall not exceed 0% opacity as a 3-minute average.	
Fugitive Emissions: Fugitive PE shall not exceed 0.52 ton/yr.	
Fugitive PM_{10} emissions shall not exceed 0.18 ton/yr.	

Emissions Unit ID: **P905**

2. Additional Terms and Conditions

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

i. for DDGS loadout, the use of enclosures and a baghouse.

2.b The annual allowable emission rate is based on the annual production of 75,000,000 gallons of 200 proof ethanol which is denatured (at 5%) with 3,750,000 gallons of gasoline (78,750,000 gallons total). Since the facility annual production rate is equivalent to the maximum capacity of emissions unit P003 (Fermentation and Beer Well), no operational restrictions, monitoring, recordkeeping or reporting requirements are necessary to ensure that this emissions unit does not exceed its annual allowable emission rates.

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

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

B. Operational Restrictions

None.

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 baghouse stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log, as well as the date and time the daily check was performed. If visible emissions are observed, the permittee shall also note the following in the operations log:

   a. the color of the emissions;

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

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

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

   a. the color of the emissions;

   b. whether the emissions are representative of normal operations;

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

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

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

D. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse stack serving this emissions unit (b) identify all days during which any visible fugitive particulate emissions were observed from the egress points serving this emissions unit (c) describe any corrective actions taken to eliminate the visible particulate emissions from the baghouse stack and (d) describe any corrective actions taken to eliminate the visible fugitive particulate emissions from the egress points serving this emissions unit. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

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:

Emissions Unit ID: **P905**

a. Emission Limitation:

The baghouse shall achieve an outlet emission rate of not greater than 0.00525 grain of particulate emissions per dry standard cubic foot of exhaust gases.

Applicable Compliance Method:

If required, compliance with the mass emission limitation shall be determined according to test Methods 1 - 5, as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

b. Emission Limitation:

The baghouse shall achieve an outlet emission rate of not greater than 0.00525 grain of PM_{10} per dry standard cubic foot of exhaust gases.

Applicable Compliance Method:

If required, compliance with the mass emission limitation shall be determined according to test Methods 1 - 4, as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources", and test Method 201 as set forth in the most recent update of 40 CFR Part 51, Appendix M.

c. Emission Limitations:

PE from the baghouse stack shall not exceed 0.28 ton/yr.
PM_{10} emissions from the baghouse stack shall not exceed 0.28 ton/yr.

Applicable Compliance Method:

Compliance with the annual emission limitations may be demonstrated using the following calculation based on the baghouse design and maximum operating schedule.

= 0.00525 gr/dscf x 1 lb/7000 gr x 1400 cfm x 60 min/hour x 8760 hours/yr x 0.0005 ton/lb = 0.28 ton/yr

d. Emission Limitations:

Visible particulate emissions from the baghouse stack shall not exceed 0%

opacity as a 3-minute average.

Visible fugitive particulate emissions shall not exceed 5% opacity, as a 6-minute average, from DDGS loadout.

Applicable Compliance Method:

If required, compliance shall be determined according to test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

e. Emission Limitation:

Fugitive PE shall not exceed 0.52 ton/yr.

Applicable Compliance Method:

Compliance with the annual emission limitation may be demonstrated by the following calculation using the AP-42 emission factor (Section 9.9.1, March 2003) and the maximum DDGS throughput.

= (0.086 lb/ton x 300,000 tons/yr x 0.2 (80% Capture) x 0.2 (80% Control)) x 0.0005 ton/lb = 0.52 ton/yr

f. Emission Limitation:

Fugitive PM_{10} emissions shall not exceed 0.18 ton/yr.

Applicable Compliance Method:

Compliance with the annual emission limitation may be demonstrated by the following calculation using the AP-42 emission factor (Section 9.9.1, March 2003) and the maximum DDGS throughput.

= (0.029 lb/ton x 300,000 tons/yr x 0.2 (80% Capture) x 0.2 (80% Control)) x 0.0005 ton/lb = 0.18 ton/yr

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 - Ethanol Shift Tank 1 - 99,128 Gallons	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions shall not exceed 0.26 ton/yr. The requirements of this rule also include compliance with the requirements of 40 CFR Part 60, Subpart Kb. See Section A.2.a.
	OAC rule 3745-21-09(L)	See Section A.2.b.
	40 CFR Part 60, Subpart Kb	See Sections A.2.c through A.2.l, C.1. through C.7., and D.1. through D.5.

2. Additional Terms and Conditions

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

2.b 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).

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

Emissions Unit ID: **T001**

2.d 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.e 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.f Each opening in a non-contact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.

2.g 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.h 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.i 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.j 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.k 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.l Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

B. Operational Restrictions

1. The maximum true vapor pressure of organic liquid stored in this storage tank shall not exceed 11.11 psia.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with Volatile Organic Liquid (VOL). If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel.

2. For vessels equipped with a liquid-mounted or mechanical shoe primary seal, the permittee shall visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections

required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Ohio EPA, Southeast District Office in the inspection report required in Section D.4. Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

3. For vessels equipped with a double-seal system as specified in Section A.2.e.ii.:

   a. the permittee shall visually inspect the vessel as specified in Section C.4. at least every 5 years; or

   b. the permittee shall visually inspect the vessel as specified in Section C.2.

4. The permittee shall visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in Section C.2. and Section C.3.b. and at intervals no greater than 5 years in the case of vessels specified in Section C.3.a.

5. 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. This record shall be maintained for the life of the source.

6. The owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 storing a liquid with a maximum true vapor pressure greater than or equal to 3.5 kPa or with a design capacity greater than or equal to 75 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure greater than or equal to 15.0 kPa shall maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period.

7. The permittee shall keep a record of each inspection performed as required by Sections C.1. through C.4. Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

D. Reporting Requirements

1. This emissions unit is subject to the applicable provisions of Subpart Kb of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60. The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

   Pursuant to 40 CFR Part 60.7, the permittee is hereby advised of the requirement to report the following at the appropriate times:

   i. Construction date (no later than 30 days after such date);

   ii. Anticipated start-up date (not more than 60 days or less than 30 days prior to such date);

   iii. Actual start-up date (within 15 days after such date); and

   iv. If required, date of performance testing (at least 30 days prior to testing).

   Reports are to be sent to:

   Ohio Environmental Protection Agency
   DAPC - Compliance Monitoring Unit
   P. O. Box 163669
   Columbus, Ohio 43216-3669

   and

   Ohio Environmental Protection Agency
   Southeast District Office
   Division of Air Pollution Control
   2195 Front Street
   Logan, Ohio 43138

2. The permittee shall notify the Ohio EPA, Southeast District Office, in writing, at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by Sections C.1. and C.4. to afford the Ohio EPA the opportunity to have an observer present. If the inspection required by Section C.4. is not planned and the owner or operator could not have known about the inspection 30 days in advance or refilling the tank, the owner or operator shall notify the Ohio EPA, Southeast District Office at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Ohio EPA, Southeast District Office at least 7 days prior to the refilling.

3. The permittee shall furnish the Ohio EPA, Southeast District Office with a report that describes the control equipment and certifies that the control equipment meets the specifications of Sections A.2.d through A.2.l and C.1. This report shall be an attachment to the notification of the actual date of initial startup of an affected facility required by Section D.1.iii. and shall be postmarked within 15 days after such date.

4. If any of the conditions described in Section C.2. are detected during the annual visual inspection required by Section C.2., a report shall be furnished to the Ohio EPA, Southeast District Office within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.

5. After each inspection required by C.3. 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.3.b., a report shall be furnished to the Ohio EPA, Southeast District Office within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of Sections A.2.d through A.2.l or C.3. and list each repair made.

6. If any organic liquid with a true vapor pressure greater than 11.11 psia is stored in this emissions unit, the permittee shall notify the Ohio EPA, Southeast District Office within 30 days.

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:

Emissions Unit ID: **T002**

a. Emission Limitation:

VOC emissions shall not exceed 0.26 ton/yr.

Applicable Compliance Method:

Compliance shall be determined by a one-time calculation using the TANKS Program 4.0 or other method acceptable to the Ohio EPA, Southeast District Office.

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 - Ethanol Shift Tank 2 - 99,128 Gallons	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions shall not exceed 0.26 ton/yr. The requirements of this rule also include compliance with the requirements of 40 CFR Part 60, Subpart Kb. See Section A.2.a.
	OAC rule 3745-21-09(L)	See Section A.2.b.
	40 CFR Part 60, Subpart Kb	See Sections A.2.c through A.2.l, C.1. through C.7., and D.1. through D.5.

2. Additional Terms and Conditions

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

2.b 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).

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

2.d 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.e 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.f Each opening in a non-contact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.

2.g 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.h 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.i 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.j 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.k 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.l Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

B. Operational Restrictions

1. The maximum true vapor pressure of organic liquid stored in this storage tank shall not exceed 11.11 psia.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with Volatile Organic Liquid (VOL). If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel.

2. For vessels equipped with a liquid-mounted or mechanical shoe primary seal, the permittee shall visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections

required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Ohio EPA, Southeast District Office in the inspection report required in Section D.4. Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

3. For vessels equipped with a double-seal system as specified in Section A.2.e.ii.:

   a. the permittee shall visually inspect the vessel as specified in Section C.4. at least every 5 years; or

   b. the permittee shall visually inspect the vessel as specified in Section C.2.

4. The permittee shall visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in Section C.2. and Section C.3.b. and at intervals no greater than 5 years in the case of vessels specified in Section C.3.a.

5. 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. This record shall be maintained for the life of the source.

6. The owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 storing a liquid with a maximum true vapor pressure greater than or equal to 3.5 kPa or with a design capacity greater than or equal to 75 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure greater than or equal to 15.0 kPa shall maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period.

7. The permittee shall keep a record of each inspection performed as required by Sections C.1. through C.4. Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

D. Reporting Requirements

1. This emissions unit is subject to the applicable provisions of Subpart Kb of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60. The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

   Pursuant to 40 CFR Part 60.7, the permittee is hereby advised of the requirement to report the following at the appropriate times:

   i. Construction date (no later than 30 days after such date);

   ii. Anticipated start-up date (not more than 60 days or less than 30 days prior to such date);

   iii. Actual start-up date (within 15 days after such date); and

   iv. If required, date of performance testing (at least 30 days prior to testing).

   Reports are to be sent to:

   Ohio Environmental Protection Agency
   DAPC - Compliance Monitoring Unit
   P. O. Box 163669
   Columbus, Ohio 43216-3669

   and

   Ohio Environmental Protection Agency
   Southeast District Office
   Division of Air Pollution Control
   2195 Front Street
   Logan, Ohio 43138

2. The permittee shall notify the Ohio EPA, Southeast District Office, in writing, at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by Sections C.1. and C.4. to afford the Ohio EPA the opportunity to have an observer present. If the inspection required by Section C.4. is not planned and the owner or operator could not have known about the inspection 30 days in advance or refilling the tank, the owner or operator shall notify the Ohio EPA, Southeast District Office at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Ohio EPA, Southeast District Office at least 7 days prior to the refilling.

3. The permittee shall furnish the Ohio EPA, Southeast District Office with a report that describes the control equipment and certifies that the control equipment meets the specifications of Sections A.2.d through A.2.l and C.1. This report shall be an attachment to the notification of the actual date of initial startup of an affected facility required by Section D.1.iii. and shall be postmarked within 15 days after such date.

4. If any of the conditions described in Section C.2. are detected during the annual visual inspection required by Section C.2., a report shall be furnished to the Ohio EPA, Southeast District Office within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.

5. After each inspection required by C.3. 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.3.b., a report shall be furnished to the Ohio EPA, Southeast District Office within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of Sections A.2.d through A.2.l or C.3. and list each repair made.

6. If any organic liquid with a true vapor pressure greater than 11.11 psia is stored in this emissions unit, the permittee shall notify the Ohio EPA, Southeast District Office within 30 days.

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:

Emissions Unit ID: **T002**

a. Emission Limitation:

VOC emissions shall not exceed 0.26 ton/yr.

Applicable Compliance Method:

Compliance shall be determined by a one-time calculation using the TANKS Program 4.0 or other method acceptable to the Ohio EPA, Southeast District Office.

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 - Gasoline Denaturant Storage Tank - 32,400 Gallons	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions shall not exceed 1.02 tons/yr. The requirements of this rule also include compliance with the requirements of 40 CFR Part 60, Subpart Kb. See Section A.2.a.
	OAC rule 3745-21-09(L)	See Section A.2.b.
	40 CFR Part 60, Subpart Kb	See Sections A.2.c through A.2.l, C.1. through C.7., and D.1. through D.5.

2. Additional Terms and Conditions

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

2.b In accordance with OAC rule 3745-21-09(L)(2), this storage tank is exempt from the requirements of OAC rule 3745-21-09(L)(1),(3),and (4) because the tank has a capacity of less than 40,000 gallons.

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

2.d 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.e 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.f Each opening in a non-contact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.

2.g 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.h 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.i 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.j 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.k 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.l Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

B. Operational Restrictions

1. The maximum true vapor pressure of organic liquid stored in this storage tank shall not exceed 11.11 psia.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with Volatile Organic Liquid (VOL). If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel.

2. For vessels equipped with a liquid-mounted or mechanical shoe primary seal, the permittee shall visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage

vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Ohio EPA, Southeast District Office in the inspection report required in Section D.4. Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

3. For vessels equipped with a double-seal system as specified in Section A.2.e.ii.:

   a. the permittee shall visually inspect the vessel as specified in Section C.4. at least every 5 years; or

   b. the permittee shall visually inspect the vessel as specified in Section C.2.

4. The permittee shall visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in Section C.2. and Section C.3.b. and at intervals no greater than 5 years in the case of vessels specified in Section C.3.a.

5. 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. This record shall be maintained for the life of the source.

6. The owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 storing a liquid with a maximum true vapor pressure greater than or equal to 3.5 kPa or with a design capacity greater than or equal to 75 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure greater than or equal to 15.0 kPa shall maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period.

7. The permittee shall keep a record of each inspection performed as required by Sections C.1. through C.4. Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

D. Reporting Requirements

1. This emissions unit is subject to the applicable provisions of Subpart Kb of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60. The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

   Pursuant to 40 CFR Part 60.7, the permittee is hereby advised of the requirement to report the following at the appropriate times:

   i. Construction date (no later than 30 days after such date);

   ii. Anticipated start-up date (not more than 60 days or less than 30 days prior to such date);

   iii. Actual start-up date (within 15 days after such date); and

   iv. If required, date of performance testing (at least 30 days prior to testing).

   Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Compliance Monitoring Unit
P. O. Box 163669
Columbus, Ohio 43216-3669

and

Ohio Environmental Protection Agency
Southeast District Office
Division of Air Pollution Control
2195 Front Street
Logan, Ohio 43138

2. The permittee shall notify the Ohio EPA, Southeast District Office, in writing, at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by Sections C.1. and C.4. to afford the Ohio EPA the opportunity to have an observer present. If the inspection required by Section C.4. is not planned and the owner or operator could not have known about the inspection 30 days in advance or refilling the tank, the owner or operator shall notify the Ohio EPA, Southeast District Office at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Ohio EPA, Southeast District Office at least 7 days prior to the refilling.

3. The permittee shall furnish the Ohio EPA, Southeast District Office with a report that describes the control equipment and certifies that the control equipment meets the specifications of Sections A.2.d through A.2.l and C.1. This report shall be an attachment to the notification of the actual date of initial startup of an affected facility required by Section D.1.iii. and shall be postmarked within 15 days after such date.

4. If any of the conditions described in Section C.2. are detected during the annual visual inspection required by Section C.2., a report shall be furnished to the Ohio EPA, Southeast District Office within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.

5. After each inspection required by C.3. 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.3.b., a report shall be furnished to the Ohio EPA, Southeast District Office within 30

days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of Sections A.2.d through A.2.l or C.3. and list each repair made.

6. If any organic liquid with a true vapor pressure greater than 11.11 psia is stored in this emissions unit, the permittee shall notify the Ohio EPA, Southeast District Office within 30 days.

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. Emission Limitation:

      VOC emissions shall not exceed 1.02 tons/yr.

      Applicable Compliance Method:

      Compliance shall be determined by a one-time calculation using the TANKS Program 4.0 or other method acceptable to the Ohio EPA, Southeast District Office.

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
T004 - Denatured Ethanol Storage Tank 1 - 448,936 Gallons	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions shall not exceed 0.24 ton/yr. The requirements of this rule also include compliance with the requirements of 40 CFR Part 60, Subpart Kb. See Section A.2.a.
	OAC rule 3745-21-09(L)	See Section A.2.b.
	40 CFR Part 60, Subpart Kb	See Sections A.2.c through A.2.l, C.1. through C.7., and D.1. through D.5.

2. Additional Terms and Conditions

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

2.b 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).

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

2.d 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.e 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.f Each opening in a non-contact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.

2.g 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.h 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.i 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.j 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.k 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.l Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

B. Operational Restrictions

1. The maximum true vapor pressure of organic liquid stored in this storage tank shall not exceed 11.11 psia.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with Volatile Organic Liquid (VOL). If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel.

2. For vessels equipped with a liquid-mounted or mechanical shoe primary seal, the permittee shall visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections

required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Ohio EPA, Southeast District Office in the inspection report required in Section D.4. Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

3. For vessels equipped with a double-seal system as specified in Section A.2.e.ii.:

   a. the permittee shall visually inspect the vessel as specified in Section C.4. at least every 5 years; or

   b. the permittee shall visually inspect the vessel as specified in Section C.2.

4. The permittee shall visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in Section C.2. and Section C.3.b. and at intervals no greater than 5 years in the case of vessels specified in Section C.3.a.

5. 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. This record shall be maintained for the life of the source.

6. The owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 storing a liquid with a maximum true vapor pressure greater than or equal to 3.5 kPa or with a design capacity greater than or equal to 75 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure greater than or equal to 15.0 kPa shall maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period.

7. The permittee shall keep a record of each inspection performed as required by Sections C.1. through C.4. Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

D. Reporting Requirements

1. This emissions unit is subject to the applicable provisions of Subpart Kb of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60. The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

   Pursuant to 40 CFR Part 60.7, the permittee is hereby advised of the requirement to report the following at the appropriate times:

   i. Construction date (no later than 30 days after such date);

   ii. Anticipated start-up date (not more than 60 days or less than 30 days prior to such date);

   iii. Actual start-up date (within 15 days after such date); and

   iv. If required, date of performance testing (at least 30 days prior to testing).

   Reports are to be sent to:

   Ohio Environmental Protection Agency
   DAPC - Compliance Monitoring Unit
   P. O. Box 163669
   Columbus, Ohio 43216-3669

   and

   Ohio Environmental Protection Agency
   Southeast District Office
   Division of Air Pollution Control
   2195 Front Street
   Logan, Ohio 43138

2. The permittee shall notify the Ohio EPA, Southeast District Office, in writing, at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by Sections C.1. and C.4. to afford the Ohio EPA the opportunity to have an observer present. If the inspection required by Section C.4. is not planned and the owner or operator could not have known about the inspection 30 days in advance or refilling the tank, the owner or operator shall notify the Ohio EPA, Southeast District Office at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Ohio EPA, Southeast District Office at least 7 days prior to the refilling.

3. The permittee shall furnish the Ohio EPA, Southeast District Office with a report that describes the control equipment and certifies that the control equipment meets the specifications of Sections A.2.d through A.2.l and C.1. This report shall be an attachment to the notification of the actual date of initial startup of an affected facility required by Section D.1.iii. and shall be postmarked within 15 days after such date.

4. If any of the conditions described in Section C.2. are detected during the annual visual inspection required by Section C.2., a report shall be furnished to the Ohio EPA, Southeast District Office within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.

5. After each inspection required by C.3. 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.3.b., a report shall be furnished to the Ohio EPA, Southeast District Office within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of Sections A.2.d through A.2.l or C.3. and list each repair made.

6. If any organic liquid with a true vapor pressure greater than 11.11 psia is stored in this emissions unit, the permittee shall notify the Ohio EPA, Southeast District Office within 30 days.

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:

Emissions Unit ID: **T004**

a. Emission Limitation:

VOC emissions shall not exceed 0.24 ton/yr.

Applicable Compliance Method:

Compliance shall be determined by a one-time calculation using the TANKS Program 4.0 or other method acceptable to the Ohio EPA, Southeast District Office.

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 - Denatured Ethanol Storage Tank 2 - 448,936 Gallons	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions shall not exceed 0.24 ton/yr. The requirements of this rule also include compliance with the requirements of 40 CFR Part 60, Subpart Kb. See Section A.2.a.
	OAC rule 3745-21-09(L)	See Section A.2.b.
	40 CFR Part 60, Subpart Kb	See Sections A.2.c through A.2.l, C.1. through C.7., and D.1. through D.5.

2. Additional Terms and Conditions

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

2.b 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).

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

2.d 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.e 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.f Each opening in a non-contact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.

2.g 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.h 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.i 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.j 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.k 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.l Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

B. Operational Restrictions

1. The maximum true vapor pressure of organic liquid stored in this storage tank shall not exceed 11.11 psia.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with Volatile Organic Liquid (VOL). If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel.

2. For vessels equipped with a liquid-mounted or mechanical shoe primary seal, the permittee shall visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections

required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Ohio EPA, Southeast District Office in the inspection report required in Section D.4. Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

3. For vessels equipped with a double-seal system as specified in Section A.2.e.ii.:

   a. the permittee shall visually inspect the vessel as specified in Section C.4. at least every 5 years; or

   b. the permittee shall visually inspect the vessel as specified in Section C.2.

4. The permittee shall visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in Section C.2. and Section C.3.b. and at intervals no greater than 5 years in the case of vessels specified in Section C.3.a.

5. 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. This record shall be maintained for the life of the source.

6. The owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 storing a liquid with a maximum true vapor pressure greater than or equal to 3.5 kPa or with a design capacity greater than or equal to 75 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure greater than or equal to 15.0 kPa shall maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period.

7. The permittee shall keep a record of each inspection performed as required by Sections C.1. through C.4. Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

D. Reporting Requirements

1. This emissions unit is subject to the applicable provisions of Subpart Kb of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60. The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

   Pursuant to 40 CFR Part 60.7, the permittee is hereby advised of the requirement to report the following at the appropriate times:

   i. Construction date (no later than 30 days after such date);

   ii. Anticipated start-up date (not more than 60 days or less than 30 days prior to such date);

   iii. Actual start-up date (within 15 days after such date); and

   iv. If required, date of performance testing (at least 30 days prior to testing).

   Reports are to be sent to:

   Ohio Environmental Protection Agency
   DAPC - Compliance Monitoring Unit
   P. O. Box 163669
   Columbus, Ohio 43216-3669

   and

   Ohio Environmental Protection Agency
   Southeast District Office
   Division of Air Pollution Control
   2195 Front Street
   Logan, Ohio 43138

2. The permittee shall notify the Ohio EPA, Southeast District Office, in writing, at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by Sections C.1. and C.4. to afford the Ohio EPA the opportunity to have an observer present. If the inspection required by Section C.4. is not planned and the owner or operator could not have known about the inspection 30 days in advance or refilling the tank, the owner or operator shall notify the Ohio EPA, Southeast District Office at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Ohio EPA, Southeast District Office at least 7 days prior to the refilling.

3. The permittee shall furnish the Ohio EPA, Southeast District Office with a report that describes the control equipment and certifies that the control equipment meets the specifications of Sections A.2.d through A.2.l and C.1. This report shall be an attachment to the notification of the actual date of initial startup of an affected facility required by Section D.1.iii. and shall be postmarked within 15 days after such date.

4. If any of the conditions described in Section C.2. are detected during the annual visual inspection required by Section C.2., a report shall be furnished to the Ohio EPA, Southeast District Office within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.

5. After each inspection required by C.3. 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.3.b., a report shall be furnished to the Ohio EPA, Southeast District Office within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of Sections A.2.d through A.2.l or C.3. and list each repair made.

6. If any organic liquid with a true vapor pressure greater than 11.11 psia is stored in this emissions unit, the permittee shall notify the Ohio EPA, Southeast District Office within 30 days.

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:

Emissions Unit ID: **T005**

a. Emission Limitation:

VOC emissions shall not exceed 0.24 ton/yr.

Applicable Compliance Method:

Compliance shall be determined by a one-time calculation using the TANKS Program 4.0 or other method acceptable to the Ohio EPA, Southeast District Office.

F. Miscellaneous Requirements

None.