State of Ohio Environmental Protection Agency

Street Address:
Lazarus Gov. Center
50 West Town Street, Suite 700
Columbus, OH 43215

TELE: (614) 644-3020 **FAX:** (614) 644-2329

Mailing Address:
Lazarus Gov. Center
P.O. Box 1049
Columbus, OH 43216-1049

RE: FINAL PERMIT TO INSTALL
CRAWFORD COUNTY
Application No: 03-17234
Fac ID: 0317030080

DATE: 11/29/2007

CERTIFIED MAIL

Y	TOXIC REVIEW
	PSD
Y	SYNTHETIC MINOR
Y	CEMS
	MACT
Subparts Db, Kb, DD and VV	NSPS
	NESHAPS
	NETTING
	MAJOR NON-ATTAINMENT
Y	MODELING SUBMITTED
	GASOLINE DISPENSING FACILITY

The Andersons, Inc.
Stacy Schmidt
PO Box 119 480 W. Dussel
Maumee, OH 43537

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469.

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

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

Sincerely,

Michael W. Ahern

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

CC: **USEPA** **NWDO**

STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

Permit To Install	**Issue Date: 11/29/2007**
Terms and Conditions	**Effective Date: 11/29/2007**

FINAL PERMIT TO INSTALL 03-17234

Application Number: 03-17234

Facility ID: 0317030080

Permit Fee: **$25300**

Name of Facility: The Andersons, Inc.

Person to Contact: Stacy Schmidt

Address: PO Box 119 480 W. Dussel
Maumee, OH 43537

Location of proposed air contaminant source(s) [emissions unit(s)]:
2155 State Route 598
Galion, **Ohio**

Description of proposed emissions unit(s):
Installation of a 127.05 MM GPY dry mill ethanol plant.

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Chris Korleski
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 (i.e., postmarked) quarterly by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

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
PE	98.98
PM10	51.55
NO_x	96.55
SO_2	89.54
CO	97.41
VOC	98.23

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 -(B001) - 122 mmBtu/hr Natural Gas-fired Recuperative Thermal Oxidizer/Waste Heat Recovery Boiler

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	Combined process and combustion emissions from B001, B002, P005, P007, P008, P009, P011 (except emissions vented to the flare) and P902 (except emissions vented to Stack S70) after control shall not exceed: 20.70 lbs/hr of carbon monoxide (CO), 90.29 tons CO/year; 21.20 lbs/hr of nitrogen oxides (NO_X), 92.86 tons NO_X/year; 20.52 lbs/hr of sulfur dioxide (SO_2), 89.51 tons SO_2/year; 5.40 lbs/hr of volatile organic compounds (VOC), 23.55 tons VOC/year 4.50 pounds of particulate matter 10 microns or less in diameter (PM10)/hour and 19.63 tons PM10/year. Visible particulate emissions (PE) shall not exceed 5% opacity, as a six-minute average. The requirements of this rule also include compliance with the requirements of OAC rules 3745-21-08(B).
OAC rule 3745-17-07(A)(1) OAC rule 3745-17-10(B)(1) 40 CFR Part 60 Subpart Db	The emission limitations specified by these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
OAC rule 3745-21-08(B)	See A.2.b.
OAC rule 3745-18-06	See A.2.a.

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Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-114-01 ORC 3704.03(F)	See A.III.6

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 design of the emissions unit and the technology associated with the current operating practices satisfy the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B).

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. On June 24, 2003, the rule revision was submitted to U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision 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 Best available technology (BAT) control requirements for this emissions unit has been determined to be:

i. the use of low NO_X burners with flue gas recirculation;

ii. venting of emissions to a thermal oxidizer control system which meets the following:

a. 95% destruction efficiency for VOC;

b. 90% destruction efficiency for CO;

c. 95% control efficiency for PM10, including the use of a multiclone for the removal of particulate matter prior to entering the thermal oxidizers. The control system shall result in a mass emission rate of 4.50 lbs PM10 /hour from the thermal oxidizers;

and

iii. firing only natural gas.

BAT also includes compliance with the terms and conditions of this permit.

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2.d Within 180 days of the effective date of this permit, the permittee shall develop and maintain a written quality assurance/quality control plan for the continuous NO_X monitoring system, designed to ensure continuous valid and representative readings of NO_X emissions in units of the applicable standard(s). The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_X monitoring system must be kept on site and available for inspection during regular office hours.

The plan shall include the requirement to conduct quarterly cylinder gas audits or relative accuracy audits as required in 40 CFR Part 60; and to conduct relative accuracy test audits in units of the standard(s), in accordance with and at the frequencies required per 40 CFR Part 60.

2.e All particulate matter is PM10.

B. Operational Restrictions

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

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 properly install, operate, and maintain equipment to continuously monitor and record the combustion temperature, in degrees Fahrenheit, within the thermal oxidizer during operation of this emissions unit, including periods of startup and shutdown. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

   Whenever the monitored value for the combustion temperature deviates from the value specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

   In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment to the acceptable value specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that

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determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the combustion temperature reading immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The acceptable value for the average combustion temperature within the thermal oxidizer, for all 3-hour blocks of time, when the emissions unit was in operation, shall not be more than 50 degrees Fahrenheit below the average temperature maintained during the most recent emissions test that demonstrated the emissions unit to be in compliance or the minimum average combustion temperature within the thermal oxidizer recommended by the thermal oxidizer manufacturer until such testing is completed.

This value is effective for the duration of this permit. In addition, approved revisions to the value will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

3. The permittee shall install, operate, and maintain equipment to continuously monitor and record NOx emissions from this emissions unit in units of the applicable standard(s). The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Parts 60.

   The permittee shall maintain records of data obtained by the continuous NOx monitoring system including, but not limited to:

   a. emissions of NOx in parts per million on an instantaneous (one-minute) basis;

   b. emissions of NOx in pounds per hour and in all units of the applicable standard(s) in the appropriate averaging period;

   c. results of quarterly cylinder gas audits;

   d. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;

   e. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);

   f. hours of operation of the emissions unit, continuous NOx monitoring system, and control equipment;

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g. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous NOx monitoring system;

h. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous NOx monitoring system; as well as,

i. the reason (if known) and the corrective actions taken (if any) for each such event in (g) and (h).

4. Prior to the installation of the continuous NOx monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specifications 2 for approval by the Ohio EPA, Central Office. The Ohio EPA, Central Office shall approve the proposed sampling site and certify that the continuous NOx monitoring system meets the requirements of Performance Specification 2. Once received, the letter/document of certification shall be maintained on-site and shall be made available to the director (the appropriate Ohio EPA District Office or local air agency) upon request.

   Each continuous monitoring system consists of all the equipment used to acquire and record data in units of all applicable standard(s), and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.

5. The permittee shall operate and maintain equipment to continuously monitor and record the fuel flow rate in order to stoichiometrically calculate emissions of NOx, in pounds per hour. Fuel heat content values for each fuel burned, as applied in the stoichiometric calculations, shall also be recorded. The permittee shall maintain records of data obtained by the fuel flow monitor/meter, including the dates and results of each calibration check and the magnitude of calibration adjustments; periods of downtime and malfunction of the fuel flow monitor/meter; as well as, the reason (if known) and the corrective actions taken (if any) for each such event.

6. The permit to install was evaluated based on the actual materials and the design parameters of each emissions unit's exhaust system, as specified by the permittee in the permit to install application. Ohio EPA's “Review of New Sources of Air Toxic Emissions” policy ("Air Toxic Policy") was applied for each pollutant emitted by these emissions units using data from the permit to install application and an ISCST3 model (or other Ohio EPA approved model). The maximum ambient impact from the use of the ISCST3 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

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TLV (mg/m^3): 176.24
Maximum Hourly Emission Rate (lbs/hr): 0.76
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 5.14 (entire facility)
MAGLC (ug/m^3): 4,196

Pollutant: Acetaldehyde
TLV (mg/m^3): 33.20
Maximum Hourly Emission Rate (lbs/hr): 1.96
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 92.60 (entire facility)
MAGLC (ug/m^3): 790

Pollutant: Formaldehyde
TLV (mg/m^3): 0.272
Maximum Hourly Emission Rate (lbs/hr): 0.45
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 3.20 (entire facility)
MAGLC (ug/m^3): 6.47

Pollutant: Formic Acid
TLV (mg/m^3): 9.411
Maximum Hourly Emission Rate (lbs/hr): 0.31
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 19.27 (entire facility)
MAGLC (ug/m^3): 224.07

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

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

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

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

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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 air toxic 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) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

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

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

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

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

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in the emissions unit. These reports shall be submitted to Ohio EPA, Northwest District Office (NWDO) within 30 days after the deviation occurs.

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

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

   Reports are to be sent to:

   Ohio Environmental Protection Agency
   DAPC - PIDM
   50 West Town Street, Suite 700
   P. O. Box 1049

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Columbus, Ohio 43216-1049

and

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Ohio EPA, Northwest District Office
Division of Air Pollution Control
347 N. Dunbridge Rd.
Bowling Green, Ohio 43402

3. The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous NOx monitoring system:

   a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency, documenting all instances of NOx emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, OAC Chapter 3745-23, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s). If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect.

   b. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall include the following:

      i. the facility name and address;

      ii. the manufacturer and model number of the continuous NOx and other associated monitors;

      iii. the location of the continuous NOx monitor;

      iv. the exceedance report as detailed in (a) above;

      v. the total NOx emissions for the calendar quarter (tons);

      vi. the total operating time (hours) of the emissions unit;

      vii. the total operating time of the continuous NOx monitoring system while the emissions unit was in operation;

      viii. results and date of quarterly cylinder gas audits;

      ix. results and date of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));

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x. the results of any relative accuracy test audit showing the continuous NOx monitor out-of-control and the compliant results following any corrective actions;

xi. the date, time, and duration of any/each malfunction* of the continuous NOx monitoring system, emissions unit, and/or control equipment;

xii. the date, time, and duration of any downtime* of the continuous NOx monitoring system and/or control equipment while the emissions unit was in operation; and

xiii. the reason (if known) and the corrective actions taken (if any) for each event in (b)(xi) and (b)(xii).

Each report shall address the operations conducted and data obtained during the previous calendar quarter.

E. Testing Requirements

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

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

   b. The emission testing shall be conducted to:

      i. demonstrate compliance with the allowable combined emission limitation for CO of 20.70 lbs/hr;

      ii. demonstrate compliance with the allowable combined emission limitation for NO_X of 21.20 lbs/hr;

      iii. demonstrate compliance with the allowable combined emission limitation for SO_2 of 20.52 lbs/hr;

      iv. demonstrate compliance with the allowable combined emission limitation for PM_{10} of 4.50 lbs/hr;

      v. demonstrate compliance with the allowable combined emission limitation for VOC of 5.40 lbs/hr;

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vi. demonstrate compliance with the control efficiency (95% for VOC) of the thermal oxidizer; and

vii. verify the expected emissions for single and combined HAPs.

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

i. for $PM_{10,}$ Methods 201 and 202 of 40 CFR Part 51, Appendix M for condensibles;
ii. for NOx, Methods 1-4 and 7 of 40 CFR Part 60, Appendix A;
iii. for CO, Methods 1-4 and 10 of 40 CFR Part 60, Appendix A;
iv. for SO_2, Methods 1-4 and 6c of 40 CFR Part 60, Appendix A;
v. for VOC Methods 1-4 and 18, 25 or 25A, as appropriate, of 40 CFR Part 60, Appendix A.
Appropriate methods shall be used in conjunction with the test methods and procedures specified in Methods 18, 25, or 25A of 40 CFR Part 60, Appendix A for determining VOC mass emissions; and
vi. for HAPs (specifically pollutants acetaldehyde, acrolein, formaldehyde, formic acid, hexane and methanol), Methods 18 or 320 from 40 CFR Part 60, Appendix A.

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

d. The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in Methods 18, 25, or 25A of 40 CFR Part 60, Appendix A for VOC emissions . The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases."

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

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

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

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

2. Within 60 days after achieving maximum production rate but no later than 180 days after start up of the specified emission unit, the permittee shall conduct certification tests of the continuous NOx monitoring system, in units of the applicable standard(s), to demonstrate compliance with 40 CFR Part 60, Appendix B, Performance Specifications 2 and 6; and ORC section 3704.03(I).

   Personnel from the Ohio EPA Central Office and the Ohio EPA Northwest District Office shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. Two copies of the test results shall be submitted to Ohio EPA, one copy to the Ohio EPA Northwest District Office and one copy to Ohio EPA Central Office, and pursuant to OAC rule 3745-15-04, within 30 days after the test is completed.

   Certification of the continuous NOx monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets the requirements of 40 CFR Part 60, Appendix B, Performance Specifications 2 and 6; and ORC section 3704.03(I). The letter/document of certification of the continuous NOx monitoring system, issued by the Ohio EPA, shall be maintained on file upon receipt and made available to the Ohio EPA, Northwest District Office upon request.

   Ongoing compliance with the NOx emissions limitations contained in this permit, 40 CFR Part 60, and any other applicable standard(s) shall be demonstrated through the data collected as required in the Monitoring and Record keeping Section of this permit; and through demonstration of compliance with the quality assurance/quality control plan, which shall meet the requirements of 40 CFR Part 60.

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

   a. <u>Emission Limitation</u>

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Combined CO emissions from B001, B002, P005, P007, P008, P009, P011 (except emissions vented to the flare) and P902 (except emissions vented to Stack S70) shall not exceed 20.70 lbs CO/hr and 90.29 tons CO/year.

Applicable Compliance Method
Compliance with the hourly allowable emission limitation shall be demonstrated through performance testing as described in Section E.1 above.

The annual emission limitation was developed by multiplying the maximum annual throughput of 392,568 tons DDGS/year (the maximum annual throughput for emissions unit P902) by a company-supplied emission factor of 0.46 lb CO/ton DDGS and multiplying by 0.0005 ton/lb. Therefore, if compliance is shown with the maximum annual throughput for DDGS and the CO emission factor is verified through testing, compliance with the annual limitation shall be assumed.

b. Emissions Limitation
Combined NO_X emissions from B001, B002, P005, P007, P008, P009, P011 (except emissions vented to the flare) and P902 (except emissions vented to Stack S70) shall not exceed 21.20 lbs NO_X/hr and 92.86 tons NO_X/year.

Applicable Compliance Method
Compliance with the hourly allowable emission limitation above shall be demonstrated through the data recorded by the continuous emissions monitor. Compliance with the hourly allowable emission limitation shall also be based on the results of emission testing conducted in accordance with performance testing as described in Sections E.1 and E.2 above.

The annual emission limitation was developed by multiplying the hourly emission limitation by a maximum operating schedule of 8760 hours/year and dividing by 2,000 pounds/ton. Therefore, if compliance is shown with the hourly limitation, compliance with the annual limitation shall be assumed.

c. Emissions Limitation
Combined SO_2 emissions from B001, B002, P005, P007, P008, P009, P011 (except emissions vented to the flare) and P902 (except emissions vented to Stack S70) shall not exceed 20.52 lbs SO_2/hr and 89.51 tons SO_2/year.

Applicable Compliance Method
Compliance with the hourly allowable emission limitation shall be demonstrated through performance testing as described in Section E.1 above.

The annual emission limitation was developed by multiplying the maximum annual throughput of 392,568 tons DDGS/year (the maximum annual throughput for emissions unit P902) by a company-supplied emission factor of 0.456 lb

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SO2/ton DDGS and multiplying by 0.0005 ton/lb. Therefore, if compliance is shown with the maximum annual throughput for DDGS and the SO2 emission factor is verified through testing, compliance with the annual limitation shall be assumed.

d. Emissions Limitation
Combined PM_{10} emissions from B001, B002, P005, P007, P008, P009, P011 (except emissions vented to the flare) and P902 (except emissions vented to Stack S70) shall not exceed 4.50 lbs PM10/hr and 19.63 tons PM10/year.

Applicable Compliance Method
Compliance with the hourly allowable emission limitation shall be demonstrated through performance testing as described in Section E.1 above.

The annual emission limitation was developed by multiplying the maximum annual throughput of 392,568 tons DDGS/year (the maximum annual throughput for emissions unit P902) by a company-supplied emission factor of 0.10 lb PM10/ton DDGS and multiplying by 0.0005 ton/lb. Therefore, if compliance is shown with the maximum annual throughput for DDGS and the PM10 emission factor is verified through testing, compliance with the annual limitation shall be assumed.

e. Emissions Limitation
Combined VOC emissions from B001, B002, P005, P007, P008, P009, P011 (except emissions vented to the flare) and P902 (except emissions vented to Stack S70) shall not exceed 5.40 lbs VOC/hr and 23.55 tons VOC/year.

Applicable Compliance Method
Compliance with the hourly allowable emission limitation shall be demonstrated through performance testing as described in Section E.1 above.

The annual emission limitation was developed by multiplying the maximum annual throughput of 392,568 tons DDGS/year (the maximum annual throughput for emissions unit P902) by a company-supplied emission factor of 0.12 lb VOC/ton DDGS and multiplying by 0.0005 ton/lb. Therefore, if compliance is shown with the maximum annual throughput for DDGS and the VOC emission factor is verified through testing, compliance with the annual limitation shall be assumed.

f. Emissions Limitation
Visible PE from the stack serving this emissions unit shall not exceed 5% opacity, as a six-minute average.

Applicable Compliance Method

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If required, compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

g. Emissions Limitation
The recuperative thermal oxidizer shall meet a minimum destruction efficiency of 95% of VOC emissions.

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Applicable Compliance Method
Compliance with the control efficiency requirements above shall be demonstrated based on the results of emission testing conducted in accordance with the methods outlined in Section E.1 of this permit.

h. Emissions Limitation
The recuperative thermal oxidizer shall meet a minimum destruction efficiency of 95% of CO emissions.

Applicable Compliance Method
Compliance with the CO destruction efficiency shall be assumed as long as compliance with the hourly CO mass emission limitation is maintained. [Due to the creation of CO in the RTO, it is not possible to perform testing to demonstrate compliance directly associated with the destruction of CO entering the RTO.]

i. Emissions Limitation
The thermal oxidizer control system shall meet a minimum control efficiency of 95% of PM10 emissions including the use of a multiclone for the removal of particulate matter prior to entering the thermal oxidizers. The control system shall result in a mass emission rate of 4.50 lbs PM10 /hour from the thermal oxidizers;

Applicable Compliance Method
Compliance with the PM10 control efficiency shall be assumed as long as compliance with the hourly PM10 mass emission limitation is maintained.

F. Miscellaneous Requirements

None

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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 -(B002) - 122 mmBtu/hr Natural Gas-fired Recuperative Thermal Oxidizer/Waste Heat Recovery Boiler

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	Combined process and combustion emissions from B001, B002, P005, P007, P008, P009, P011 (except emissions vented to the flare) and P902 (except emissions vented to Stack S70) after control shall not exceed: 20.70 lbs/hr of carbon monoxide (CO), 90.29 tons CO/year; 21.20 lbs/hr of nitrogen oxides (NO_X), 92.86 tons NO_X/year; 20.52 lbs/hr of sulfur dioxide (SO_2), 89.51 tons SO_2/year; 5.40 lbs/hr of volatile organic compounds (VOC), 23.55 tons VOC/year 4.50 pounds of particulate matter 10 microns or less in diameter (PM10)/hour and 19.63 tons PM10/year. Visible particulate emissions (PE) shall not exceed 5% opacity, as a six-minute average. The requirements of this rule also include compliance with the requirements of OAC rules 3745-21-08(B).
OAC rule 3745-17-07(A)(1) OAC rule 3745-17-10(B)(1) 40 CFR Part 60 Subpart Db	The emission limitations specified by these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
OAC rule 3745-21-08(B)	See A.2.b.
OAC rule 3745-114-01 ORC 3704.03(F)	See A.III.6

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Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-18-06	See A.2.a.

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 design of the emissions unit and the technology associated with the current operating practices satisfy the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B).

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. On June 24, 2003, the rule revision was submitted to U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision 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 Best available technology (BAT) control requirements for this emissions unit has been determined to be:

i. the use of low NO_X burners with flue gas recirculation;

ii. venting of emissions to a thermal oxidizer control system which meets the following:

a. 95% destruction efficiency for VOC;

b. 90% destruction efficiency for CO;

c. 95% control efficiency for PM10 including the use of a multiclone for the removal of particulate matter prior to entering the thermal oxidizers. The control system shall result in a mass emission rate of 4.50 lbs PM10 /hour from the thermal oxidizers;

and

iii. firing only natural gas.

BAT also includes compliance with the terms and conditions of this permit.

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2.d Within 180 days of the effective date of this permit, the permittee shall develop and maintain a written quality assurance/quality control plan for the continuous NO_X monitoring system, designed to ensure continuous valid and representative readings of NO_X emissions in units of the applicable standard(s). The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_X monitoring system must be kept on site and available for inspection during regular office hours.

The plan shall include the requirement to conduct quarterly cylinder gas audits or relative accuracy audits as required in 40 CFR Part 60; and to conduct relative accuracy test audits in units of the standard(s), in accordance with and at the frequencies required per 40 CFR Part 60.

2.e All particulate matter is PM10.

B. Operational Restrictions

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

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 properly install, operate, and maintain equipment to continuously monitor and record the combustion temperature, in degrees Fahrenheit, within the thermal oxidizer during operation of this emissions unit, including periods of startup and shutdown. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

   Whenever the monitored value for the combustion temperature deviates from the value specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

   In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment to the acceptable value specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that

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determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the combustion temperature reading immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The acceptable value for the average combustion temperature within the thermal oxidizer, for all 3-hour blocks of time, when the emissions unit was in operation, shall not be more than 50 degrees Fahrenheit below the average temperature maintained during the most recent emissions test that demonstrated the emissions unit to be in compliance or the minimum average combustion temperature within the thermal oxidizer recommended by the thermal oxidizer manufacturer until such testing is completed.

This value is effective for the duration of this permit. In addition, approved revisions to the value will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

3. The permittee shall install, operate, and maintain equipment to continuously monitor and record NOx emissions from this emissions unit in units of the applicable standard(s). The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Parts 60.

   The permittee shall maintain records of data obtained by the continuous NOx monitoring system including, but not limited to:

   a. emissions of NOx in parts per million on an instantaneous (one-minute) basis;

   b. emissions of NOx in pounds per hour and in all units of the applicable standard(s) in the appropriate averaging period;

   c. results of quarterly cylinder gas audits;

   d. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;

   e. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);

   f. hours of operation of the emissions unit, continuous NOx monitoring system, and control equipment;

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g. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous NOx monitoring system;

h. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous NOx monitoring system; as well as,

i. the reason (if known) and the corrective actions taken (if any) for each such event in (g) and (h).

4. Prior to the installation of the continuous NOx monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specifications 2 for approval by the Ohio EPA, Central Office. The Ohio EPA, Central Office shall approve the proposed sampling site and certify that the continuous NOx monitoring system meets the requirements of Performance Specification 2. Once received, the letter/document of certification shall be maintained on-site and shall be made available to the director (the appropriate Ohio EPA District Office or local air agency) upon request.

   Each continuous monitoring system consists of all the equipment used to acquire and record data in units of all applicable standard(s), and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.

5. The permittee shall operate and maintain equipment to continuously monitor and record the fuel flow rate in order to stoichiometrically calculate emissions of NOx, in pounds per hour. Fuel heat content values for each fuel burned, as applied in the stoichiometric calculations, shall also be recorded. The permittee shall maintain records of data obtained by the fuel flow monitor/meter, including the dates and results of each calibration check and the magnitude of calibration adjustments; periods of downtime and malfunction of the fuel flow monitor/meter; as well as, the reason (if known) and the corrective actions taken (if any) for each such event.

6. The permit to install was evaluated based on the actual materials and the design parameters of each emissions unit's exhaust system, as specified by the permittee in the permit to install application. Ohio EPA's “Review of New Sources of Air Toxic Emissions” policy ("Air Toxic Policy") was applied for each pollutant emitted by these emissions units using data from the permit to install application and an ISCST3 model (or other Ohio EPA approved model). The maximum ambient impact from the use of the ISCST3 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

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TLV (mg/m^3): 176.24
Maximum Hourly Emission Rate (lbs/hr): 0.76
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 5.14 (entire facility)
MAGLC (ug/m^3): 4,196

Pollutant: Acetaldehyde
TLV (mg/m^3): 33.20
Maximum Hourly Emission Rate (lbs/hr): 1.96
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 92.60 (entire facility)
MAGLC (ug/m^3): 790

Pollutant: Formaldehyde
TLV (mg/m^3): 0.272

Maximum Hourly Emission Rate (lbs/hr): 0.45
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 3.20 (entire facility)
MAGLC (ug/m^3): 6.47

Pollutant: Formic Acid
TLV (mg/m^3): 9.411
Maximum Hourly Emission Rate (lbs/hr): 0.31
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 19.27 (entire facility)
MAGLC (ug/m^3): 224.07

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

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

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

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

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of air toxic 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) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

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

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

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

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

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in the emissions unit. These reports shall be submitted to Ohio EPA, Northwest District Office (NWDO) within 30 days after the deviation occurs.

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

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

Reports are to be sent to:

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Ohio Environmental Protection Agency
DAPC - PIDM
50 West Town Street, Suite 700
P. O. Box 1049
Columbus, Ohio 43216-1049

and

Ohio EPA, Northwest District Office
Division of Air Pollution Control
347 N. Dunbridge Rd.
Bowling Green, Ohio 43402

3. The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous NOx monitoring system:

   a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency, documenting all instances of NOx emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, OAC Chapter 3745-23, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s). If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect.

   b. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall include the following:

      i. the facility name and address;

      ii. the manufacturer and model number of the continuous NOx and other associated monitors;

      iii. the location of the continuous NOx monitor;

      iv. the exceedance report as detailed in (a) above;

      v. the total NOx emissions for the calendar quarter (tons);

      vi. the total operating time (hours) of the emissions unit;

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vii. the total operating time of the continuous NOx monitoring system while the emissions unit was in operation;

viii. results and date of quarterly cylinder gas audits;

ix. results and date of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));

x. the results of any relative accuracy test audit showing the continuous NOx monitor out-of-control and the compliant results following any corrective actions;

xi. the date, time, and duration of any/each malfunction* of the continuous NOx monitoring system, emissions unit, and/or control equipment;

xii. the date, time, and duration of any downtime* of the continuous NOx monitoring system and/or control equipment while the emissions unit was in operation; and

xiii. the reason (if known) and the corrective actions taken (if any) for each event in (b)(xi) and (b)(xii).

Each report shall address the operations conducted and data obtained during the previous calendar quarter.

4. The permittee shall submit an annual report to the director (the appropriate District Office or local air agency) in writing, of whether the operations of the source are consistent with the information regarding the operations that was used to conduct the modeling. The director may consider any significant departure from the operations of the source described in the permit to install application that results in greater emissions than the emissions rate modeled to determine the ground level concentration as a modification and require the owner or operator to submit a permit to install application for the increased emissions.

E. Testing Requirements

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

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

   b. The emission testing shall be conducted to:

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i. demonstrate compliance with the allowable combined emissions limitation for CO of 20.70 lbs/hr;

ii. demonstrate compliance with the allowable combined emissions limitation for NO_X of 21.20 lbs/hr;

iii. demonstrate compliance with the allowable combined emissions limitation for SO_2 of 20.52 lbs/hr;

iv. demonstrate compliance with the allowable combined emissions limitation for PM_{10} of 4.50 lbs/hr;

v. demonstrate compliance with the allowable combined emissions limitation for VOC of 5.40 lbs/hr;

vi. demonstrate compliance with the control efficiency (95% for VOC) of the thermal oxidizer; and

vii. verify the expected emissions for single and combined HAPs.

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

i. for $PM_{10,}$ Methods 201 and 202 of 40 CFR Part 51, Appendix M for condensibles;
ii. for NOx, Methods 1-4 and 7 of 40 CFR Part 60, Appendix A;
iii. for CO, Methods 1-4 and 10 of 40 CFR Part 60, Appendix A;
iv. for SO_2, Methods 1-4 and 6c of 40 CFR Part 60, Appendix A;
v. for VOC Methods 1-4 and 18, 25 or 25A, as appropriate, of 40 CFR Part 60, Appendix A.
Appropriate methods shall be used in conjunction with the test methods and procedures specified in Methods 18, 25, or 25A of 40 CFR Part 60, Appendix A for determining VOC mass emissions; and
vi. for HAPs (specifically pollutants acetaldehyde, acrolein, formaldehyde, formic acid, hexane and methanol), Methods 18 or 320 from 40 CFR Part 60, Appendix A.

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

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

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selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases."

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

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

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

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

2. Within 60 days after achieving maximum production rate but no later than 180 days after start up of the specified emission unit, the permittee shall conduct certification tests of the continuous NOx monitoring system, in units of the applicable standard(s), to demonstrate compliance with 40 CFR Part 60, Appendix B, Performance Specifications 2 and 6; and ORC section 3704.03(I).

Personnel from the Ohio EPA Central Office and the Ohio EPA Northwest District Office shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. Two copies of the test results shall be submitted to Ohio EPA, one copy to the Ohio EPA Northwest District Office and one copy to Ohio EPA Central Office, and pursuant to OAC rule 3745-15-04, within 30 days after the test is completed.

Certification of the continuous NOx monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets the requirements of 40 CFR Part 60, Appendix B, Performance Specifications 2 and 6; and ORC section 3704.03(I). The letter/document of certification of the continuous NOx monitoring

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system, issued by the Ohio EPA, shall be maintained on file upon receipt and made available to the Ohio EPA, Northwest District Office upon request.

Ongoing compliance with the NOx emissions limitations contained in this permit, 40 CFR Part 60, and any other applicable standard(s) shall be demonstrated through the data collected as required in the Monitoring and Record keeping Section of this permit; and through demonstration of compliance with the quality assurance/quality control plan, which shall meet the requirements of 40 CFR Part 60.

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

a. Emission Limitation
Combined CO emissions from B001, B002, P005, P007, P008, P009, P011 (except emissions vented to the flare) and P902 (except emissions vented to Stack S70) shall not exceed 20.70 lbs CO/hr and 90.29 tons CO/year.

Applicable Compliance Method
Compliance with the hourly allowable emission limitation shall be demonstrated through performance testing as described in Section E.1 above.

The annual emission limitation was developed by multiplying the maximum annual throughput of 392,568 tons DDGS/year (the maximum annual throughput for emissions unit P902) by a company-supplied emission factor of 0.46 lb CO/ton DDGS and multiplying by 0.0005 ton/lb. Therefore, if compliance is shown with the maximum annual throughput for DDGS and the CO emission factor is verified through testing, compliance with the annual limitation shall be assumed.

b. Emissions Limitation
Combined NO_X emissions from B001, B002, P005, P007, P008, P009, P011 (except emissions vented to the flare) and P902 (except emissions vented to Stack S70) shall not exceed 21.20 lbs NO_X/hr and 92.86 tons NO_X/year.

Applicable Compliance Method
Compliance with the hourly allowable emission limitation above shall be demonstrated through the data recorded by the continuous emissions monitor. Compliance with the hourly allowable emission limitation shall also be based on the results of emission testing conducted in accordance with performance testing as described in Sections E.1 and E.2 above.

The annual emission limitation was developed by multiplying the hourly emission limitation by a maximum operating schedule of 8760 hours/year and dividing by 2,000 pounds/ton. Therefore, if compliance is shown with the hourly limitation, compliance with the annual limitation shall be assumed.

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c. Emissions Limitation
Combined SO_2 emissions from B001, B002, P005, P007, P008, P009, P011 (except emissions vented to the flare) and P902 (except emissions vented to Stack S70) shall not exceed 20.52 lbs SO_2/hr and 89.51 tons SO_2/year.

Applicable Compliance Method
Compliance with the hourly allowable emission limitation shall be demonstrated through performance testing as described in Section E.1 above.

The annual emission limitation was developed by multiplying the maximum annual throughput of 392,568 tons DDGS/year (the maximum annual throughput for emissions unit P902) by a company-supplied emission factor of 0.456 lb SO2/ton DDGS and multiplying by 0.0005 ton/lb. Therefore, if compliance is shown with the maximum annual throughput for DDGS and the SO2 emission factor is verified through testing, compliance with the annual limitation shall be assumed.

d. Emissions Limitation
Combined PM_{10} emissions from B001, B002, P005, P007, P008, P009, P011 (except emissions vented to the flare) and P902 (except emissions vented to Stack S70) shall not exceed 4.50 lbs PM10/hr and 19.63 tons PM10/year.

Applicable Compliance Method
Compliance with the hourly allowable emission limitation shall be demonstrated through performance testing as described in Section E.1 above.

The annual emission limitation was developed by multiplying the maximum annual throughput of 392,568 tons DDGS/year (the maximum annual throughput for emissions unit P902) by a company-supplied emission factor of 0.10 lb PM10/ton DDGS and multiplying by 0.0005 ton/lb. Therefore, if compliance is shown with the maximum annual throughput for DDGS and the PM10 emission factor is verified through testing, compliance with the annual limitation shall be assumed.

e. Emissions Limitation
Combined VOC emissions from B001, B002, P005, P007, P008, P009, P011 (except emissions vented to the flare) and P902 (except emissions vented to Stack S70) shall not exceed 5.40 lbs VOC/hr and 23.55 tons VOC/year.

Applicable Compliance Method
Compliance with the hourly allowable emission limitation shall be demonstrated through performance testing as described in Section E.1 above.

The annual emission limitation was developed by multiplying the maximum annual throughput of 392,568 tons DDGS/year (the maximum annual throughput

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for emissions unit P902) by a company-supplied emission factor of 0.12 lb VOC/ton DDGS and multiplying by 0.0005 ton/lb. Therefore, if compliance is shown with the maximum annual throughput for DDGS and the VOC emission factor is verified through testing, compliance with the annual limitation shall be assumed.

f. Emissions Limitation
Visible PE from the stack serving this emissions unit shall not exceed 5% opacity, as a six-minute average.

Applicable Compliance Method
If required, compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

g. Emissions Limitation
The recuperative thermal oxidizer shall meet a minimum destruction efficiency of 95% of VOC emissions.

Applicable Compliance Method
Compliance with the control efficiency requirements above shall be demonstrated based on the results of emission testing conducted in accordance with the methods outlined in Section E.1 of this permit.

h. Emissions Limitation
The recuperative thermal oxidizer shall meet a minimum destruction efficiency of 95% of CO emissions.

Applicable Compliance Method
Compliance with the CO destruction efficiency shall be assumed as long as compliance with the hourly CO mass emission limitation is maintained. [Due to the creation of CO in the RTO, it is not possible to perform testing to demonstrate compliance directly associated with the destruction of CO entering the RTO.]

i. Emissions Limitation
The thermal oxidizer control system shall meet a minimum control efficiency of 95% of PM10 emissions including the use of a multiclone for the removal of particulate matter prior to entering the thermal oxidizers. The control system shall result in a mass emission rate of 4.50 lbs PM10 /hour from the thermal oxidizers;

Applicable Compliance Method

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Compliance with the PM10 control efficiency shall be assumed as long as compliance with the hourly PM10 mass emission limitation is maintained.

F. Miscellaneous Requirements

None

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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 - (F001) - Paved Roadways and Parking Areas

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	There shall be no visible particulate emissions (PE), except for one minute during any 60-minute period. Fugitive PE shall not exceed 34.49 tons/year. The permittee shall implement best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see A.2.b through A.2.f).
OAC rule 3745-17-07(B)	See A.2.g.
OAC rule 3745-17-08(B)	See A.2.h.
ORC 3704.03(T)(4)	See A.2.i.

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:

<u>Paved Roadways:</u>

All

<u>Paved Parking Areas:</u>

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

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parking areas by sweeping at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other equally-effective 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).

2.i The BAT requirements under OAC rule 3745-31-05(A)(3) do not apply to the emissions of particulate matter 10 microns or less in size (PM10) since the uncontrolled potential to emit for PM10 is less than ten tons per year.

The potential to emit for PM10 is 6.90 tons per year based upon the calculations in USEPA, AP-42, Section 13.2.1.3. (November 2006).

B. Operational Restrictions

None

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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 of Operation

Paved Parking Areas	Minimum Inspection Frequency
All	Once Per Day of Operation

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

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

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

   b. the date 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 hauling grain, ethanol, denaturant, and/or DDGS entering the plant site and their respective weights on a daily basis.

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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 PE, except for one minute during any 60-minute period.

   Applicable Compliance Method:
   Visible PE 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:
   Fugitive PE shall not exceed 34.49 tons/year.

   Applicable Compliance Method:
   Compliance with the annual emission limitation may be demonstrated using the calculation methodology in AP-42, Section 13.2.1 Equation 2 (12/03) and inputs representing the potential to emit, 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 = 26.9

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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 = 0.70 lb PE/vehicle mile traveled (VMT)
Using the AP-42 emission factor and the maximum annual VMT:
PE = (0.70 lb/VMT)(98,545 VMT/yr)(ton/2000 lbs)
= 34.49 tons/year.

F. Miscellaneous Requirements

None

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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 -(F002) - 45 mmBtu/hr Column Grain Dryer

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(C)	Fugitive particulate emissions (PE) shall not exceed 7.36 tons/year Fugitive particulate matter equal to or less than 10 microns in size (PM10) shall not exceed 1.84 tons/year 2.57 tons nitrogen oxides (NO_X)/year 1.89 tons carbon monoxide (CO)/year 0.13 ton volatile organic compounds (VOC)/year 0.02 ton sulfur dioxide (SO2)/year See A.2.a.
OAC rule 3745-17-07(B)	See A.2.b.
OAC rule 3745-17-08(B)	See A.2.c.
OAC rule 3745-21-08(B)	See A.2.e.
OAC rule 3745-18-06	This emissions unit is exempt from the requirements of OAC rule 3745-18-06 in accordance with OAC rule 3745-18-06(A).
40 CFR Part 60, Subpart DD	The emission limitation/control requirement specified by this rule is less stringent than the emission limitation/control requirement established pursuant to OAC rule 3745-31-05(C).

2. Additional Terms and Conditions

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2.a Permit to Install 03-17234 for this air contaminant source takes into account the use of column plate perforations with a diameter equal to or less than 0.078 inches with 54% being equal to 0.063 inches and compliance with the maximum annual throughput restriction outlined in B.1, as voluntary restrictions proposed by the permittee for purposes of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3).

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

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

2.d Since natural gas is the only fuel fired in this emissions unit, no SO2 emission limitation is established by OAC Chapter 3745-18 for this emissions unit.

2.e The design of the emissions unit and the technology associated with the current operating practices satisfy the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B).

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. On June 24, 2003, the rule revision was submitted to U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision 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.

B. Operational Restrictions

1. The maximum annual grain throughput for this emissions unit shall not exceed 168,000 tons of grain.

C. Monitoring and/or Recordkeeping Requirements

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

D. Reporting Requirements

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1. The permittee shall submit reports that summarize the total annual amount of grain throughput for this emissions unit. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

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:
   7.36 tons fugitive PE/year

   Applicable Compliance Method:
   The emission limitation was established by multiplying a manufacturer-supplied emission factor of 0.0876 lb PE/ton of grain by the maximum annual grain throughput of 168,000 tons, and then dividing 2000 lbs per ton. Therefore, provided compliance is shown with the maximum annual grain throughput, compliance with the annual limitation shall be assumed.

   b. Emission Limitation:
   1.84 tons fugitive PM10/year

   Applicable Compliance Method:
   The emission limitation was established by multiplying a manufacturer-supplied emission factor of 0.0876 lb PE/ton of grain by the maximum annual grain throughput of 168,000 tons and by 25% (per AP-42, Table 1.4-2, (7/98)), and then dividing by 2000 lbs per ton. Therefore, provided compliance is shown with the maximum annual grain throughput, compliance with the annual limitation shall be assumed.

   c. Emission Limitation:
   2.57 tons NO_X /year

   Applicable Compliance Method:
   The emission limitation was established by multiplying a manufacturer-supplied emission factor of 0.0306 lb NO_x/ton of grain by the maximum annual grain throughput of 168,000 tons, and then dividing by 2000 lbs per ton. Therefore, provided compliance is shown with the maximum annual grain throughput, compliance with the annual limitation shall be assumed.

   d. Emission Limitation:
   1.89 tons CO/year

   Applicable Compliance Method:

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The emission limitation was established by multiplying a manufacturer-supplied emission factor of 0.0225 lb CO/ton of grain by the maximum annual grain throughput of 168,000 tons, and then dividing by 2000 lbs per ton. Therefore, provided compliance is shown with the maximum annual grain throughput, compliance with the annual limitation shall be assumed.

e. Emission Limitation:
0.13 ton VOC/year

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Applicable Compliance Method:
The emission limitation was established by multiplying the emission factor of 0.001488 lb VOC/ton of grain (based on AP-42, Table 1.4-2, (7/98)) by the maximum annual throughput rate of 168,000 tons, and then dividing by 2000 lbs per ton. Therefore, provided compliance is shown with the maximum annual grain throughput, compliance with the annual limitation shall be assumed.

f. Emission Limitation:
0.02 ton SO2/year

Applicable Compliance Method:
The emission limitation was established by multiplying the emission factor of 0.0001785 lb SO_2/ton of grain (based on AP-42, Table 1.4-2, (7/98)) by the maximum annual throughput rate of 168,000 tons, and then dividing by 2000 lbs per ton. Therefore, provided compliance is shown with the maximum annual grain throughput, compliance with the annual limitation shall be assumed.

F. Miscellaneous Requirements

None

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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 -(F003) - Railcar Grain Loading System

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(C)	Fugitive particulate emissions (PE) shall not exceed 0.19 ton/yr Fugitive particulate matter equal to or less than 10 microns in size (PM10) shall not exceed 0.02 ton/year. See A.2.a.
OAC rule 3745-17-07(B)	See A.2.b.
OAC rule 3745-17-08(B)	See A.2.c.

2. Additional Terms and Conditions

2.a Permit to Install 03-17234 for this air contaminant source takes into account the use of adjustable telescoping chutes and compliance with the maximum annual throughput restriction outlined in B.1, as voluntary restrictions proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3).

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

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

B. Operational Restrictions

1. The maximum annual grain throughput for this emissions unit shall not exceed 56,000 tons of grain.

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C. Monitoring and/or Recordkeeping Requirements

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

D. Reporting Requirements

1. The permittee shall submit reports that summarize the total annual amount of grain throughput for this emissions unit. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

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:
   0.19 ton fugitive PE/year

   Applicable Compliance Method:
   The emission limitation was established by multiplying an emission factor of 0.027 lb PE/ton (AP-42, 9.9.1-1, (3/03)) by the maximum annual grain throughput of 56,000 tons, a control efficiency of 75% and dividing 2000 lbs per ton. Therefore, provided compliance is shown with the maximum annual grain throughput, compliance with the annual limitation shall be assumed.

   b. Emission Limitation:
   0.02 ton fugitive PM10/year

   Applicable Compliance Method:
   The emission limitation was established by multiplying an emission factor of 0.0022 lb PM10/ton (AP-42, 9.9.1-1, (3/03)) by the maximum annual grain throughput of 56,000 tons, a control efficiency of 75% and dividing 2000 lbs per ton. Therefore, provided compliance is shown with the maximum annual grain throughput, compliance with the annual limitation shall be assumed.

F. Miscellaneous Requirements

None

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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 -(J001) - Denatured Ethanol Loading Operations with Flare

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(C)	Volatile compound (VOC) emissions shall not exceed 3.02 tons/yr. Carbon monoxide (CO) emissions shall not exceed 4.61 tons/yr. Nitrogen oxide (NO_X) emissions shall not exceed 0.88 ton/yr. See A.2.a.
OAC rule 3745-21-07(E)	See A.2.b through A.2.e.
OAC rule 3745-21-08(B)	See A.2.g.

2. Additional Terms and Conditions

2.a The permit to install for this air contaminant source takes into account the use of a flare system, whenever this air contaminant source is in operation, with a minimum capture efficiency of 99% and a destruction efficiency of 98%, by weight for VOC (overall control efficiency of 97%), and limiting the hours of operation to 2000 hours per year, as a voluntary restriction as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3).

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

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

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

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

2.g The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by complying with the requirements established pursuant to OAC rule3745-21-07(E) 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. On June 24, 2003, the rule revision was submitted to U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision 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.

B. Operational Restrictions

1. The maximum annual ethanol throughput rate for this emissions unit shall not exceed:

   i. 18,150,000 gallons loaded to trucks, per year;

   ii. 127,050,000 gallons loaded to railcars, per year; and

   iii. 127,050,000 gallons loaded, combined.

2. The maximum hours of operation for this emissions unit shall not exceed 2000 hours per year.

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

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

   b. the flare shall be operated with a pilot flame . The pilot flame shall be present at all times the ethanol loading system is in operation and shall be monitored with a

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thermocouple or any other equivalent device to detect the presence of the pilot flame;

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

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

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

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 comply with the following monitoring and record keeping requirements on the flare controlling this emissions unit:

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

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

   c. the permittee shall maintain records of the following:

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

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

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

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

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

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

3. The permittee shall maintain monthly records of the hours of operation (in hours per month and to date for the calendar year) for this emission unit.

4. 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 quarterly 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 quarterly deviation (excursion) reports which identify all exceedances of any of the following requirements for the flare:

   a. all monitored parameters (i.e., thermocouple or equivalent device and vent stream flow indicator);

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

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

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

3. These quarterly deviation reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.

4. The permittee shall submit annual reports that summarize the following:

   a. total annual ethanol throughput, in gallons, through truck loading;

   b. total annual ethanol throughput, in gallons, through railcar loading;

   c. total annual ethanol throughput, in gallons, for this emissions unit; and

   d. the total annual hours of operation for this emissions unit.

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These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

E. Testing Requirements

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

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

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

      i. compliance with the net heating value of the gas being combusted in the flare (shall be 300 BTU/SCF or greater);

      ii. compliance with the design and operated actual exit velocity of the flare (shall be less than 60 feed per second).

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

      i. the design and operated actual exit velocity of the flare shall be determined by the method specified in Paragraph (P)(3) of OAC rule 3745-21-10;

      ii. the net heating value of the gas being combusted in the flare (shall be 300 BTU/SCF or greater) shall be determined by the method specified in Paragraph (P)(2) of OAC rule 3745-21-10.

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

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

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

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

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

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

2. Compliance with the emission limitations specified in Section A.1 of the terms and conditions of this permit shall be determined in accordance with the following method(s):

a. Emission Limitation :
VOC emissions shall not exceed 3.03 tons/yr.

Applicable Compliance Method:
The annual limitation represents the potential to emit for this emissions unit. The PTE for VOC for this emissions unit was calculated as follows:

Emissions = Truck Loading Emissions + Railcar Loading Emissions

Truck Loading Emissions = (gallons ethanol loaded/year) * (emission factor of lbs VOC/1000 gallons ethanol [as determined through the methodology in AP-42, section 5.2.2 (1/95) in conjunction with the information submitted by the permittee in PTI application #03-17234]) * (overall flare control efficiency) * (2000 lbs/ton)

Truck Loading Emissions = (18,150,000 gallons/year) * (8.39 lbs VOC/1000 gallons ethanol) * (1-.97) * (2000 lbs/ton)

Truck Loading Emissions= 2.28 tons VOC/year

Railcar Loading Emissions = (gallons ethanol loaded/year) * (emission factor of lbs VOC/1000 gallons ethanol [as determined through the methodology in AP-42, section 5.2.2 (1/95) in conjunction with the information submitted by the permittee in PTI application #03-17234]) * (overall flare control efficiency) * (2000 lbs/ton)

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Railcar Fugitive Emissions = (108,900,000 gallons/year) * (0.45 lbs VOC/1000 gallons ethanol) * (1-.97) * (2000 lbs/ton)

Railcar Fugitive Emissions = 0.74 tons VOC/year

Emissions = 2.28 + 0.74 = 3.02 tons VOC/year

* the overall control efficiency for the flare is assumed to be a minimum of 97%.

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b. Emission Limitation :
CO emissions shall not exceed 4.61 tons/year.

Applicable Compliance Method:
The annual limitation represents the potential to emit for this emissions unit. The PTE for CO for this emissions unit was calculated by multiplying the following:

Emissions = Flare Emissions + Pilot Emissions

Flare Emissions = [USEPA, AP-42 emission factor for the flare (Table 13.5-1)] * (maximum flare heat input) * (maximum operating schedule) * (2000 lbs/ton)

Flare Emissions = (0.37 lb CO/mmBtu) * (12.4 mmBtu/hr) * (2000 hrs/yr) * (2000 lbs/ton)

Flare Emissions = 4.59 tons CO/year

Pilot Emissions = [USEPA, AP-42 emission factor for the pilot (Tables 1.4-1 and 1.4-2)] * (maximum pilot heat input) * (heat input conversion factor) * (maximum operating schedule) * (2000 lbs/ton)

Pilot Emissions = (40 lbs CO/mmscf) * (0.1 mmBtu/hr) * (1020 Btu/scf) * (8760 hr/yr) * (2000 lbs/ton)

Pilot Emissions = 0.02 ton CO/year

Emissions = 4.59 tons CO/year + 0.02 ton CO/year = 4.61 tons CO/year

c. Emission Limitation :
NO_X emissions shall not exceed 0.88 ton/year.

Applicable Compliance Method:
The annual limitation represents the potential to emit for this emissions unit. The PTE for NO_X for this emissions unit was calculated by multiplying the following:

Emissions = Flare Emissions + Pilot Emissions

Flare Emissions = [USEPA, AP-42 emission factor for the flare (Table 13.5-1)] * (maximum flare heat input) * (maximum operating schedule) * (2000 lbs/ton)

Flare Emissions = (0.068 lb NO_X/mmBtu) * (12.4 mmBtu/hr) * (2000 hrs/yr) * (2000 lbs/ton)

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Flare Emissions = 0.84 tons NO_X/year

Pilot Emissions = [USEPA, AP-42 emission factor for the pilot (Tables 1.4-1 and 1.4-2)] * (maximum pilot heat input) * (heat input conversion factor) * (maximum operating schedule) * (2000 lbs/ton)

Pilot Emissions = (94 lbs NO_X/mmscf) * (0.1 mmBtu/hr) * (1020 Btu/scf) * (8760 hr/yr) * (2000 lbs/ton)

Pilot Emissions = 0.04 ton NO_X/year

Emissions = 0.84 ton NO_X/year + 0.04 ton NO_X/year = 0.88 ton NO_X/year

F. Miscellaneous Requirements

None

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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 -(P001) - Hammermill no. 1

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(C)	Particulate matter equal to or less than 10 microns in size (PM10), from emissions units P001, P002, P003 and P004, combined, shall not exceed 0.005 grain per dry standard cubic foot (gr/dscf) and 5.26 tons/year. Visible particulate emissions (PE) from the baghouse stack(s) shall not exceed 0% opacity, as a six-minute average. See A.2.a and A.2.b.
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(C).

2. Additional Terms and Conditions

2.a Permit to Install 03-17234 for P001, P002, P003 and P004 air contaminant sources, combined, takes into account the use of a baghouse system (with a 100% capture efficiency and a maximum outlet grain loading of 0.005 gr PM10/dscf) to control PM10 emissions, whenever these air contaminant source are in operation, as a voluntary restriction as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3).

2.b All particulate matter is PM10.

B. Operational Restrictions

1. The permittee shall operate the baghouse at all times when any of the following emissions units are in operation: P001, P002, P003 and/or P004.

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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 appropriate Ohio EPA district or local field office by January 31 and July 31 of each year and shall cover the previous 6-month period.

E. Testing Requirements

1. The permittee shall conduct, or have conducted, emission testing on the baghouse controlling the following emissions units: P001, P002, P003 and P004 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(s) will be operated, but not later than 180 days after initial start-up of one of the four hammermill.

   b. The emission testing shall be conducted to:

      i. demonstrate compliance with the baghouse grain loading of 0.005 gr PM10/dscf.

      ii. determine the maximum volumetric air flow for the baghouse

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

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i. for PM10, 40 CFR Part 51, Appendix M, Methods 201; and

ii. for volumetric air flow, Methods 1-4 of 40 CFR Part 60, Appendix A.

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

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

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

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

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

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

a. <u>Emission Limitation:</u>
The baghouse shall achieve a maximum outlet concentration of not greater than 0.005 gr PM10/dscf of exhaust gas.

<u>Applicable Compliance Method:</u>
Compliance with the grain loading of 0.005 gr/dscf shall be demonstrated based on the results of emission testing conducted in accordance with Methods 201 and 202 of 40 CFR Part 51, Appendix M.

b. <u>Emission Limitations:</u>
5.26 tons PM10/year

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Applicable Compliance Method:
Compliance with the annual allowable PM10 emission limitation shall be demonstrated based on the baghouse outlet grain loading and the maximum volumetric flow rate as follows:

PM10 (tons/yr) = baghouse grain loading (0.005 gr/dscf) x 1 lb/7000 gr x maximum volumetric flow rate of the baghouse (28,000 cfm) x 60 min/hour x 8760 hours/yr x ton/2000lbs

Therefore, as long as compliance with the 0.005 gr/dscf is maintained and the volumetric air flow rate is verified through testing, compliance with the annual PM10 limitation shall be ensured.

c. Emission Limitation:
Visible PE from the baghouse stack shall not exceed 0% opacity, as a six-minute average.

Applicable Compliance Method:
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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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 - *(P002) - Hammermill no. 2*

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(C)	Particulate matter equal to or less than 10 microns in size (PM10), from emissions units P001, P002, P003 and P004, combined, shall not exceed 0.005 grain per dry standard cubic foot (gr/dscf) and 5.26 tons/year. Visible particulate emissions (PE) from the bag house stack(s) shall not exceed 0% opacity, as a six-minute average. See A.2.a and A.2.b.
OAC rule 3745-17-07(A) and 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(C).

2. Additional Terms and Conditions

2.a Permit to Install 03-17234 for P001, P002, P003 and P004 air contaminant sources, combined, takes into account the use of a baghouse system (with a 100% capture efficiency and a maximum outlet grain loading of 0.005 gr PM10/dscf) to control PM10 emissions, whenever these air contaminant source are in operation, as a voluntary restriction as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3).

2.b All particulate matter is PM10**.**

B. Operational Restrictions

1. The permittee shall operate the baghouse at all times when any of the following emissions units are in operation: P001, P002, P003 and/or P004.

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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 appropriate Ohio EPA district or local field office by January 31 and July 31 of each year and shall cover the previous 6-month period.

E. Testing Requirements

1. The permittee shall conduct, or have conducted, emission testing on the baghouse controlling the following emissions units: P001, P002, P003 and P004 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(s) will be operated, but not later than 180 days after initial start-up of one of the four hammermill.

   b. The emission testing shall be conducted to:

      i. demonstrate compliance with the baghouse grain loading of 0.005 gr PM10/dscf.

      ii. determine the maximum volumetric air flow for the baghouse

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

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i. for PM10, 40 CFR Part 51, Appendix M, Methods 201 and 202; and

ii. for volumetric air flow, Methods 1-4 of 40 CFR Part 60, Appendix A.

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

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

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

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

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

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

a. <u>Emission Limitation:</u>
The baghouse shall achieve a maximum outlet concentration of not greater than 0.005 gr PM10/dscf of exhaust gas.

<u>Applicable Compliance Method:</u>
Compliance with the grain loading of 0.005 gr/dscf shall be demonstrated based on the results of emission testing conducted in accordance with Methods 201 and 202 of 40 CFR Part 51, Appendix M.

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

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5.26 tons PM10/year

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Applicable Compliance Method:
Compliance with the annual allowable PM10 emission limitation shall be demonstrated based on the baghouse outlet grain loading and the maximum volumetric flow rate as follows:

PM10 (tons/yr) = baghouse grain loading (0.005 gr/dscf) x 1 lb/7000 gr x maximum volumetric flow rate of the baghouse (28,000 cfm) x 60 min/hour x 8760 hours/yr x ton/2000lbs

Therefore, as long as compliance with the 0.005 gr/dscf is maintained and the volumetric air flow rate is verified through testing, compliance with the annual PM10 limitation shall be ensured.

c. Emission Limitation:
Visible PE from the baghouse stack shall not exceed 0% opacity, as a six-minute average.

Applicable Compliance Method:
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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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 -(P003) - Hammermill no. 3

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(C)	Particulate matter equal to or less than 10 microns in size (PM10), from emissions units P001, P002, P003 and P004, combined, shall not exceed 0.005 grain per dry standard cubic foot (gr/dscf) and 5.26 tons/year. Visible particulate emissions (PE) from the bag house stack(s) shall not exceed 0% opacity, as a six-minute average. See A.2.a and A.2.b.
OAC rule 3745-17-07(A) and 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(C).

2. Additional Terms and Conditions

2.a Permit to Install 03-17234 for P001, P002, P003 and P004 air contaminant sources, combined, takes into account the use of a baghouse system (with a 100% capture efficiency and a maximum outlet grain loading of 0.005 gr PM10/dscf) to control PM10 emissions, whenever these air contaminant source are in operation, as a voluntary restriction as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3).

2.b All particulate matter is PM10**.**

B. Operational Restrictions

1. The permittee shall operate the baghouse at all times when any of the following emissions units are in operation: P001, P002, P003 and/or P004.

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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 appropriate Ohio EPA district or local field office by January 31 and July 31 of each year and shall cover the previous 6-month period.

E. Testing Requirements

1. The permittee shall conduct, or have conducted, emission testing on the baghouse controlling the following emissions units: P001, P002, P003 and P004 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(s) will be operated, but not later than 180 days after initial start-up of one of the four hammermill.

   b. The emission testing shall be conducted to:

      i. demonstrate compliance with the baghouse grain loading of 0.005 gr PM10/dscf.

      ii. determine the maximum volumetric air flow for the baghouse

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

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i. for PM10, 40 CFR Part 51, Appendix M, Methods 201 and 202; and

ii. for volumetric air flow, Methods 1-4 of 40 CFR Part 60, Appendix A.

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

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

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

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

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

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

a. <u>Emission Limitation:</u>
The baghouse shall achieve a maximum outlet concentration of not greater than 0.005 gr PM10/dscf of exhaust gas.

<u>Applicable Compliance Method:</u>
Compliance with the grain loading of 0.005 gr/dscf shall be demonstrated based on the results of emission testing conducted in accordance with Methods 201 and 202 of 40 CFR Part 51, Appendix M.

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

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5.26 tons PM10/year

Applicable Compliance Method:
Compliance with the annual allowable PM10 emission limitation shall be demonstrated based on the baghouse outlet grain loading and the maximum volumetric flow rate as follows:

PM10 (tons/yr) = baghouse grain loading (0.005 gr/dscf) x 1 lb/7000 gr x maximum volumetric flow rate of the baghouse (28,000 cfm) x 60 min/hour x 8760 hours/yr x ton/2000lbs

Therefore, as long as compliance with the 0.005 gr/dscf is maintained and the volumetric air flow rate is verified through testing, compliance with the annual PM10 limitation shall be ensured.

c. Emission Limitation:
Visible PE from the baghouse stack shall not exceed 0% opacity, as a six-minute average.

Applicable Compliance Method:
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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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 -(P004) - Hammermill no. 4

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(C)	Particulate matter equal to or less than 10 microns in size (PM10), from emissions units P001, P002, P003 and P004, combined, shall not exceed 0.005 grain per dry standard cubic foot (gr/dscf) and 5.26 tons/year. Visible particulate emissions (PE) from the bag house stack(s) shall not exceed 0% opacity, as a six-minute average. See A.2.a and A.2.b.
OAC rule 3745-17-07(A) and 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(C).

2. Additional Terms and Conditions

2.a Permit to Install 03-17234 for P001, P002, P003 and P004 air contaminant sources, combined, takes into account the use of a baghouse system (with a 100% capture efficiency and a maximum outlet grain loading of 0.005 gr PM10/dscf) to control PM10 emissions, whenever these air contaminant source are in operation, as a voluntary restriction as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3).

2.b All particulate matter is PM10**.**

B. Operational Restrictions

1. The permittee shall operate the baghouse at all times when any of the following emissions units are in operation: P001, P002, P003 and/or P004.

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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 appropriate Ohio EPA district or local field office by January 31 and July 31 of each year and shall cover the previous 6-month period.

E. Testing Requirements

1. The permittee shall conduct, or have conducted, emission testing on the baghouse controlling the following emissions units: P001, P002, P003 and P004 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(s) will be operated, but not later than 180 days after initial start-up of one of the four hammermill.

   b. The emission testing shall be conducted to:

      i. demonstrate compliance with the baghouse grain loading of 0.005 gr PM10/dscf.

      ii. determine the maximum volumetric air flow for the baghouse

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

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i. for PM10, 40 CFR Part 51, Appendix M, Methods 201 and 202; and

ii. for volumetric air flow, Methods 1-4 of 40 CFR Part 60, Appendix A.

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

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

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

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

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

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

a. <u>Emission Limitation:</u>
The baghouse shall achieve a maximum outlet concentration of not greater than 0.005 gr PM10/dscf of exhaust gas.

<u>Applicable Compliance Method:</u>
Compliance with the grain loading of 0.005 gr/dscf shall be demonstrated based on the results of emission testing conducted in accordance with Methods 201 and 202 of 40 CFR Part 51, Appendix M.

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

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5.26 tons PM10/year

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Applicable Compliance Method:
Compliance with the annual allowable PM10 emission limitation shall be demonstrated based on the baghouse outlet grain loading and the maximum volumetric flow rate as follows:

PM10 (tons/yr) = baghouse grain loading (0.005 gr/dscf) x 1 lb/7000 gr x maximum volumetric flow rate of the baghouse (28,000 cfm) x 60 min/hour x 8760 hours/yr x ton/2000lbs

Therefore, as long as compliance with the 0.005 gr/dscf is maintained and the volumetric air flow rate is verified through testing, compliance with the annual PM10 limitation shall be ensured.

c. Emission Limitation:
Visible PE from the baghouse stack shall not exceed 0% opacity, as a six-minute average.

Applicable Compliance Method:
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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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 - (P005) - Mash and Yeast Operations (Mash Water Tank, Mingler, Slurry Tank and Cooker) Controlled with Recuperative Thermal Oxidizers

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	Combined process and combustion emissions from B001, B002, P005, P007, P008, P009, P011 (except emissions vented to the flare) and P902 (except emissions vented to Stack S70) after control shall not exceed: 20.70 lbs/hr of carbon monoxide (CO), 90.29 tons CO/year; 21.20 lbs/hr of nitrogen oxides (NO_X), 92.86 tons NO_X/year; 20.52 lbs/hr of sulfur dioxide (SO_2), 89.51 tons SO_2/year; 5.40 lbs/hr of volatile organic compounds (VOC), 23.55 tons VOC/year 4.50 pounds of particulate matter 10 microns or less in diameter (PM10)/hour and 19.63 tons PM10/year. Visible PE shall not exceed 5% opacity, as a six-minute average. The requirements of this rule also include compliance with the requirements of OAC rules 3745-21-08(B), 3745-21-09(DD) and 40 CFR Part 60, Subpart VV.
OAC rules 3745-17-07(A)(1) OAC rule 3745-18-06(E) OAC rule 3745-17-11(B)(1)	The emission limitations specified by these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
OAC rule 3745-21-08(B)	See A.2.b .

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Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-21-09(DD) and 40 CFR Part 60, Subpart VV	See the requirements for emissions unit P801.
OAC rule 3745-114-01 OCR 3704.03(F)	See A.III.2.

2. Additional Terms and Conditions

2.a The design of the emissions unit and the technology associated with the current operating practices satisfy the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B).

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. On June 24, 2003, the rule revision was submitted to U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision 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 Best available technology (BAT) control requirements for this emissions unit has been determined to be venting of emissions to a thermal oxidizer control system which meets the following:

i. 95% destruction efficiency for VOC;

ii 90% destruction efficiency for CO; and

iii. 95% control efficiency for PM10 including the use of a multiclone for the removal of particulate matter prior to entering the thermal oxidizers. The control system shall result in a mass emission rate of 4.50 lbs PM10 /hour from the thermal oxidizers.

BAT also includes compliance with the terms and conditions of this permit.

2.c The permittee shall include the appropriate process equipment and regulated components in a site fugitive Leak Detection and Repair (LDAR) program. The LDAR program shall comply with the appropriate provisions (includes operational restrictions, monitoring and record keeping, reporting, and testing) of OAC rule 3745-21-09(DD) Leaks from process units that produce organic

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chemicals, and 40 CFR 60 Subpart VV (Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry).

2.d All particulate matter is PM10.

B. Operational Restrictions

None

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall properly install, operate, and maintain equipment to continuously monitor and record the combustion temperature, in degrees Fahrenheit, within the thermal oxidizer during operation of this emissions unit, including periods of startup and shutdown. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer"s recommendations, instructions, and operating manual(s).

   Whenever the monitored value for the combustion temperature deviates from the value specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

   In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment to the acceptable value specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the combustion temperature reading immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

   The acceptable value for the average combustion temperature within the thermal oxidizer, for all 3-hour blocks of time, when the emissions unit was in operation, shall not be more than 50 degrees Fahrenheit below the average temperature maintained during the most recent emissions test that demonstrated the emissions unit to be in compliance or the minimum average combustion temperature within the thermal

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oxidizer recommended by the thermal oxidizer manufacturer until such testing is completed.

This value is effective for the duration of this permit. In addition, approved revisions to the value will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

2. The permit to install was evaluated based on the actual materials and the design parameters of each emissions unit's exhaust system, as specified by the permittee in the permit to install application. Ohio EPA's “Review of New Sources of Air Toxic Emissions” policy ("Air Toxic Policy") was applied for each pollutant emitted by these emissions units using data from the permit to install application and an ISCST3 model (or other Ohio EPA approved model). The maximum ambient impact from the use of the ISCST3 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 (mg/m^3): 176.24
Maximum Hourly Emission Rate (lbs/hr): 0.76
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 5.14 (entire facility)
MAGLC (ug/m^3): 4,196

Pollutant: Acetaldehyde
TLV (mg/m^3): 33.20
Maximum Hourly Emission Rate (lbs/hr): 1.96
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 92.60 (entire facility)
MAGLC (ug/m^3): 790

Pollutant: Formaldehyde
TLV (mg/m^3): 0.272
Maximum Hourly Emission Rate (lbs/hr): 0.45
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 3.20 (entire facility)
MAGLC (ug/m^3): 6.47

Pollutant: Formic Acid
TLV (mg/m^3): 9.411
Maximum Hourly Emission Rate (lbs/hr): 0.31
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 19.27 (entire facility)
MAGLC (ug/m^3): 224.07

Physical changes to or changes in the method of operation of the emissions units after installation or modification could affect the parameters used to determine whether or not the “Air Toxic Policy” is satisfied. Consequently, prior to making a change that

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could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

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

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

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

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of air toxic 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) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

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

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

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

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

D. Reporting Requirements

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1. The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:

   a. each period of time when the combustion temperature within the thermal oxidizer was not equal to the acceptable value;

   b. an identification of each incident of deviation described in (a) where a prompt investigation was not conducted;

   c. an identification of each incident of deviation described in (a) where prompt corrective action, that would bring the combustion temperature into compliance with the acceptable value, was determined to be necessary and was not taken; and

   d. an identification of each incident of deviation described in (a) where proper records were not maintained for the investigation and/or the corrective action.

   These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

E. Testing Requirements

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

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

   b. The emission testing shall be conducted to:

      i. demonstrate compliance with the allowable combined emission limitation for CO of 20.70 lbs/hr;

      ii. demonstrate compliance with the allowable combined emission limitation for NO_X of 21.20 lbs/hr;

      iii. demonstrate compliance with the allowable combined emission limitation for SO_2 of 20.52 lbs/hr;

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iv. demonstrate compliance with the allowable combined emission limitation for PM_{10} of 4.50 lbs/hr;

v. demonstrate compliance with the allowable combined emission limitation for VOC of 5.40 lbs/hr;

vi. demonstrate compliance with the control efficiency (95% for VOC) of the thermal oxidizer; and

vii. verify the expected emissions for single and combined HAPs.

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

i. for $PM_{10,}$ Methods 201 and 202 of 40 CFR Part 51, Appendix M for condensibles;
ii. for NOx, Methods 1-4 and 7 of 40 CFR Part 60, Appendix A;
iii. for CO, Methods 1-4 and 10 of 40 CFR Part 60, Appendix A;
iv. for SO_2, Methods 1-4 and 6c of 40 CFR Part 60, Appendix A;
v. for VOC Methods 1-4 and 18, 25 or 25A, as appropriate, of 40 CFR Part 60, Appendix A.
Appropriate methods shall be used in conjunction with the test methods and procedures specified in Methods 18, 25, or 25A of 40 CFR Part 60, Appendix A for determining VOC mass emissions; and
vi. for HAPs (specifically pollutants acetaldehyde, acrolein, formaldehyde, formic acid, hexane and methanol), Methods 18 or 320 from 40 CFR Part 60, Appendix A.

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

d. The <u>control efficiency</u> (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in Methods 18, 25, or 25A of 40 CFR Part 60, Appendix A for VOC emissions . The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases."

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

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

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

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

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

a. <u>Emission Limitation</u>
Combined CO emissions from B001, B002, P005, P007, P008, P009, P011 (except emissions vented to the flare) and P902 (except emissions vented to Stack S70) shall not exceed 20.70 lbs CO/hr and 90.29 tons CO/year.

<u>Applicable Compliance Method</u>
Compliance with the hourly allowable emission limitation shall be demonstrated through performance testing as described in Section E.1 above.

The annual emission limitation was developed by multiplying the maximum annual throughput of 392,568 tons DDGS/year (the maximum annual throughput for emissions unit P902) by a company-supplied emission factor of 0.46 lb CO/ton DDGS and multiplying by 0.0005 ton/lb. Therefore, if compliance is shown with the maximum annual throughput for DDGS and the CO emission factor is verified through testing, compliance with the annual limitation shall be assumed.

b. <u>Emissions Limitation</u>
Combined NO_X emissions from B001, B002, P005, P007, P008, P009, P011 (except emissions vented to the flare) and P902 (except emissions vented to Stack S70) shall not exceed 21.20 lbs NO_X/hr and 92.86 tons NO_X/year.

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Applicable Compliance Method
Compliance with the hourly allowable emission limitation above shall be demonstrated through the data recorded by the continuous emissions monitor. Compliance with the hourly allowable emission limitation shall also be based on the results of emission testing conducted in accordance with performance testing as described in Sections E.1 and E.2 above.

The annual emission limitation was developed by multiplying the hourly emission limitation by a maximum operating schedule of 8760 hours/year and dividing by 2,000 pounds/ton. Therefore, if compliance is shown with the hourly limitation, compliance with the annual limitation shall be assumed.

c. Emissions Limitation
Combined SO_2 emissions from B001, B002, P005, P007, P008, P009, P011 (except emissions vented to the flare) and P902 (except emissions vented to Stack S70) shall not exceed 20.52 lbs SO_2/hr and 89.51 tons SO_2/year.

Applicable Compliance Method
Compliance with the hourly allowable emission limitation shall be demonstrated through performance testing as described in Section E.1 above.

The annual emission limitation was developed by multiplying the maximum annual throughput of 392,568 tons DDGS/year (the maximum annual throughput for emissions unit P902) by a company-supplied emission factor of 0.456 lb SO2/ton DDGS and multiplying by 0.0005 ton/lb. Therefore, if compliance is shown with the maximum annual throughput for DDGS and the SO2 emission factor is verified through testing, compliance with the annual limitation shall be assumed.

d. Emissions Limitation
Combined PM_{10} emissions from B001, B002, P005, P007, P008, P009, P011 (except emissions vented to the flare) and P902 (except emissions vented to Stack S70) shall not exceed 4.50 lbs PM10/hr and 19.63 tons PM10/year.

Applicable Compliance Method
Compliance with the hourly allowable emission limitation shall be demonstrated through performance testing as described in Section E.1 above.

The annual emission limitation was developed by multiplying the maximum annual throughput of 392,568 tons DDGS/year (the maximum annual throughput for emissions unit P902) by a company-supplied emission factor of 0.10 lb PM10/ton DDGS and multiplying by 0.0005 ton/lb. Therefore, if compliance is shown with the maximum annual throughput for DDGS and the PM10 emission

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factor is verified through testing, compliance with the annual limitation shall be assumed.

e. Emissions Limitation
Combined VOC emissions from B001, B002, P005, P007, P008, P009, P011 (except emissions vented to the flare) and P902 (except emissions vented to Stack S70) shall not exceed 5.40 lbs VOC/hr and 23.55 tons VOC/year.

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Applicable Compliance Method
Compliance with the hourly allowable emission limitation shall be demonstrated through performance testing as described in Section E.1 above.

The annual emission limitation was developed by multiplying the maximum annual throughput of 392,568 tons DDGS/year (the maximum annual throughput for emissions unit P902) by a company-supplied emission factor of 0.12 lb VOC/ton DDGS and multiplying by 0.0005 ton/lb. Therefore, if compliance is shown with the maximum annual throughput for DDGS and the VOC emission factor is verified through testing, compliance with the annual limitation shall be assumed.

f. Emissions Limitation
Visible PE from the stack serving this emissions unit shall not exceed 5% opacity, as a six-minute average.

Applicable Compliance Method
If required, compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

g. Emissions Limitation
The recuperative thermal oxidizer shall meet a minimum destruction efficiency of 95% of VOC emissions.

Applicable Compliance Method
Compliance with the control efficiency requirements above shall be demonstrated based on the results of emission testing conducted in accordance with the methods outlined in Section E.1 of this permit.

h. Emissions Limitation
The recuperative thermal oxidizer shall meet a minimum destruction efficiency of 95% of CO emissions.

Applicable Compliance Method
Compliance with the CO destruction efficiency shall be assumed as long as compliance with the hourly CO mass emission limitation is maintained. [Due to the creation of CO in the RTO, it is not possible to perform testing to demonstrate compliance directly associated with the destruction of CO entering the RTO.]

i. Emissions Limitation
The thermal oxidizer control system shall meet a minimum control efficiency of 95% of PM10 emissions including the use of a multiclone for the removal of

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particulate matter prior to entering the thermal oxidizers. The control system shall result in a mass emission rate of 4.50 lbs PM10 /hour from the thermal oxidizers;

Applicable Compliance Method
Compliance with the PM10 control efficiency shall be assumed as long as compliance with the hourly PM10 mass emission limitation is maintained.

F. Miscellaneous Requirements

None

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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 -(P006) - Fermentation and Beer Well (Liquefaction Tanks and Fermentation Tanks) Controlled with Scrubber

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions shall not exceed 11.41 lbs/hour and 49.97 tons/year.
OAC rule 3745-31-05(C)	Particulate emissions (PE) shall not exceed 0.64 ton/year. Emissions of particulate matter less than 10 microns in diameter (PM_{10}) shall not exceed 0.34 ton/year. See A.2.a.
OAC rule 3745-17-07(A)(1)	None (see A.2.e).
OAC rule 3745-17-11(B)(1)	None (see A.2.d).
OAC rule 3745-114-01 ORC 3704.03(F)	See A.III.2.
OAC rule 3745-21-09(DD) and 40 CFR Part 60, Subpart VV	See the requirements for emissions unit P801.

2. Additional Terms and Conditions

2.a PTI #03-17234 for this air contaminant source takes into account the use of a wet scrubber, whenever this air contaminant source is in operation, with a minimum control efficiency of 98%, by weight for PE and PM_{10} emissions, as a voluntary restriction as proposed by the permittee for purposes of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3).

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2.b Best available technology (BAT) control requirements for the VOC emissions from this emissions unit has been determined to be use of a high efficiency wet scrubber (CO_2 scrubber) achieving a control efficiency of 98%.

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

2.d The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 lbs/hr. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply since the facility is located in Crawford County, which is identified as a P-2 county.

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

B. Operational Restrictions

None

C. Monitoring and/or Record keeping Requirements

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

   Whenever the monitored value for the water flow rate and/or pressure drop deviates from the values specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the

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deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable values specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the water flow rate and pressure drop readings immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The acceptable value for the pressure drop across the scrubber is the minimum scrubber pressure drop established during the most recent emission test that demonstrated the emissions unit to be in compliance or the minimum scrubber pressure drop recommended by the scrubber manufacturer until such testing is completed.

The acceptable value for the water flow rate is the minimum water flow rate established during the most recent emission test that demonstrated the emissions unit to be in compliance or as recommended by the scrubber manufacturer until such testing is completed.

This value is effective for the duration of this permit. In addition, approved revisions to the value will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

2. The permit to install was evaluated based on the actual materials and the design parameters of each emissions unit's exhaust system, as specified by the permittee in the permit to install application. Ohio EPA's “Review of New Sources of Air Toxic Emissions” policy ("Air Toxic Policy") was applied for each pollutant emitted by these emissions units using data from the permit to install application and the ISCST3 model (or other Ohio EPA approved model). The maximum ambient impact from the use of the ISCST3 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 (mg/m^3): 176.24
   Maximum Hourly Emission Rate (lbs/hr): 0.76
   Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 5.14 (entire facility)

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

Pollutant: Acetaldehyde
TLV (mg/m^3): 33.20
Maximum Hourly Emission Rate (lbs/hr): 1.96
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 92.60 (entire facility)
MAGLC (ug/m^3): 790

Pollutant: Formaldehyde
TLV (mg/m^3): 0.272
Maximum Hourly Emission Rate (lbs/hr): 0.45
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 3.20 (entire facility)
MAGLC (ug/m^3): 6.47

Pollutant: Formic Acid
TLV (mg/m^3): 9.411
Maximum Hourly Emission Rate (lbs/hr): 0.31
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 19.27 (entire facility)
MAGLC (ug/m^3): 224.07

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

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

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

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

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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 air toxic 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) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

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

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

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

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

D. Reporting Requirements

1. The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:

   a. each period of time when the scrubber water flow rate and pressure drop was not equal to the acceptable values;

   b. an identification of each incident of deviation described in (a) where a prompt investigation was not conducted;

   c. an identification of each incident of deviation described in (a) where prompt corrective action, that would bring the scrubber water flow rate and pressure drop into compliance with the acceptable values, was determined to be necessary and was not taken; and

   d. an identification of each incident of deviation described in (a) where proper records were not maintained for the investigation and/or the corrective action.

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These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

E. Testing Requirements

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

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

   b. The emission testing shall be conducted to:

      i. demonstrate compliance with the allowable emissions rate for VOC of 11.41 lbs/hr;

      ii. demonstrate compliance with the control efficiency (98% for VOC) of the scrubber; and

      iii. verify the expected emissions for single and combined HAPs.

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

      i. for VOC Methods 1-4 and 18, 25 or 25A of 40 CFR Part 60, Appendix A. Appropriate methods shall be used in conjunction with the test methods and procedures specified in Methods 18, 25, or 25A of 40 CFR Part 60, Appendix A for determining VOC mass emissions; and
      ii. for HAPs (specifically pollutants acetaldehyde, acrolein, formaldehyde, formic acid, hexane and methanol), Methods 18 or 320 from 40 CFR Part 60, Appendix A.

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

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

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

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

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

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

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

a. <u>Emission Limitations</u>
VOC emissions shall not exceed 11.41 lbs/hr and 49.97 tons/year.

<u>Applicable Compliance Method</u>
Compliance with the hourly allowable VOC emission limitation shall be demonstrated through performance testing as described in Section E.1 above.

The annual emission limitation for VOC was developed by multiplying the hourly emission limitation by an operating schedule of 8760 hours/year, and then dividing by 2000 lbs/ton. Therefore, if compliance is shown with the hourly limitation and the annual hours restriction, compliance with the annual limitation shall be assumed.

b. <u>Emission Limitation</u>
PE shall not exceed 0.64 ton/year

<u>Applicable Compliance Method</u>

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Compliance with the annual allowable PE limitation above shall be demonstrated based on multiplying the maximum annual ethanol throughput (121 million gallons/yr) by a company-supplied emission factor of 10.51 lbs PE/million gallon of ethanol*, and then dividing by 2000 lbs/ton.

If required, the permittee shall verify the accuracy of the emission factor of 10.51 lbs PE/million gallon of ethanol based on the results of emission testing conducted in accordance with Methods 1 - 5 of 40 CFR, Part 60, Appendix A.

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c. Emission Limitation
Emissions of particulate matter less than 10 microns in diameter (PM_{10}) shall not exceed 0.34 ton/year.

Applicable Compliance Method
Compliance with the annual allowable PM10 emission limitation above shall be demonstrated based on multiplying the maximum annual ethanol throughput (121 million gallons/yr) by a company-supplied emission factor of 5.5 lbs PM10/million gallon of ethanol*, and then dividing by 2000 lbs/ton.

If required, the permittee shall verify the accuracy of the emission factor of 5.55 lbs PM10/million gallon of ethanol based on the results of emission testing conducted in accordance with Methods 201 and 202 of 40 CFR, Part 51, Appendix M.

d. Emission Limitation
Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

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

e. Emission Limitation:
The scrubber shall meet a minimum control efficiency of 98% for VOC emissions.

Applicable Compliance Method
Compliance shall be demonstrated through performance testing as described in Section E.1 above.

F. Miscellaneous Requirements

None

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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 -(P007) - Distillation Process (Distillation Columns, Stillage and Condensation Equipment) Controlled with Recuperative Thermal Oxidizers

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	Combined process and combustion emissions from B001, B002, P005, P007, P008, P009, P011 (except emissions vented to the flare) and P902 (except emissions vented to Stack S70) after control shall not exceed: 20.70 lbs/hr of carbon monoxide (CO), 90.29 tons CO/year; 21.20 lbs/hr of nitrogen oxides (NO_X), 92.86 tons NO_X/year; 20.52 lbs/hr of sulfur dioxide (SO_2), 89.51 tons SO_2/year; 5.40 lbs/hr of volatile organic compounds (VOC), 23.55 tons VOC/year 4.50 pounds of particulate matter 10 microns or less in diameter (PM10)/hour and 19.63 tons PM10/year. Visible PE shall not exceed 5% opacity, as a six-minute average. The requirements of this rule also include compliance with the requirements of OAC rules 3745-21-08(B), 3745-21-09(DD) and 40 CFR Part 60, Subpart VV.
OAC rule 3745-17-07(A)(1)	Visible PE shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
OAC rule 3745-17-11(B)(1) OAC rule 3745-18-06(E)	The emission limitations specified by these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).

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Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-21-08(B)	See A.2.b.
OAC rule 3745-114-01 ORC 3704.03(F)	See A.III.2.
OAC rule 3745-21-09(DD) and 40 CFR Part 60, Subpart VV	See the requirements for emissions unit P801.

2. Additional Terms and Conditions

2.a The design of the emissions unit and the technology associated with the current operating practices satisfy the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B).

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. On June 24, 2003, the rule revision was submitted to U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision 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 Best available technology (BAT) control requirements for this emissions unit has been determined to be venting of emissions to a thermal oxidizer control system which meets the following:

i. 95% destruction efficiency for VOC;

ii 90% destruction efficiency for CO; and

iii. 95% control efficiency for PM10 including the use of a multiclone for the removal of particulate matter prior to entering the thermal oxidizers. The control system shall result in a mass emission rate of 4.50 lbs PM10 /hour from the thermal oxidizers.

2.c The permittee shall include the appropriate process equipment and regulated components in a site fugitive Leak Detection and Repair (LDAR) program. The LDAR program shall comply with the appropriate provisions (includes operational restrictions, monitoring and record keeping, reporting, and testing) of OAC rule 3745-21-09(DD) Leaks from process units that produce organic

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chemicals, and 40 CFR 60 Subpart VV (Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry).

2.d All particulate matter is PM10.

B. Operational Restrictions

None

C. Monitoring and/or Record keeping Requirements

1. The permittee shall properly install, operate, and maintain equipment to continuously monitor and record the combustion temperature, in degrees Fahrenheit, within the thermal oxidizer during operation of this emissions unit, including periods of startup and shutdown. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer"s recommendations, instructions, and operating manual(s).

   Whenever the monitored value for the combustion temperature deviates from the value specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

   In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment to the acceptable value specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the combustion temperature reading immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

   The acceptable value for the average combustion temperature within the thermal oxidizer, for all 3-hour blocks of time, when the emissions unit was in operation, shall not be more than 50 degrees Fahrenheit below the average temperature maintained during the most recent emissions test that demonstrated the emissions unit to be in compliance or the minimum average combustion temperature within the thermal

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oxidizer recommended by the thermal oxidizer manufacturer until such testing is completed.

This value is effective for the duration of this permit. In addition, approved revisions to the value will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

2. The permit to install was evaluated based on the actual materials and the design parameters of each emissions unit's exhaust system, as specified by the permittee in the permit to install application. Ohio EPA's “Review of New Sources of Air Toxic Emissions” policy ("Air Toxic Policy") was applied for each pollutant emitted by these emissions units using data from the permit to install application and the ISCST3 model (or other Ohio EPA approved model). The maximum ambient impact from the use of the ISCST3 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 (mg/m^3): 176.24
Maximum Hourly Emission Rate (lbs/hr): 0.76
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 5.14 (entire facility)
MAGLC (ug/m^3): 4,196

Pollutant: Acetaldehyde
TLV (mg/m^3): 33.20
Maximum Hourly Emission Rate (lbs/hr): 1.96
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 92.60 (entire facility)
MAGLC (ug/m^3): 790

Pollutant: Formaldehyde
TLV (mg/m^3): 0.272
Maximum Hourly Emission Rate (lbs/hr): 0.45
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 3.20 (entire facility)
MAGLC (ug/m^3): 6.47

Pollutant: Formic Acid
TLV (mg/m^3): 9.411
Maximum Hourly Emission Rate (lbs/hr): 0.31
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 19.27 (entire facility)
MAGLC (ug/m^3): 224.07

Physical changes to or changes in the method of operation of the emissions units after installation or modification could affect the parameters used to determine whether or not the “Air Toxic Policy” is satisfied. Consequently, prior to making a change that

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could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

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

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

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

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of air toxic 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) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

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

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

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

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

D. Reporting Requirements

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1. The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:

   a. each period of time when the combustion temperature within the thermal oxidizer was not equal to the acceptable value;

   b. an identification of each incident of deviation described in (a) where a prompt investigation was not conducted;

   c. an identification of each incident of deviation described in (a) where prompt corrective action, that would bring the combustion temperature into compliance with the acceptable value, was determined to be necessary and was not taken; and

   d. an identification of each incident of deviation described in (a) where proper records were not maintained for the investigation and/or the corrective action.

   These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

E. Testing Requirements

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

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

   b. The emission testing shall be conducted to:

      i. demonstrate compliance with the allowable combined emission limitation for CO of 20.70 lbs/hr;

      ii. demonstrate compliance with the allowable combined emission limitation for NO_X of 21.20 lbs/hr;

      iii. demonstrate compliance with the allowable combined emission limitation for SO_2 of 20.52 lbs/hr;

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iv. demonstrate compliance with the allowable combined emission limitation for PM_{10} of 4.50 lbs/hr;

v. demonstrate compliance with the allowable combined emission limitation for VOC of 5.40 lbs/hr;

vi. demonstrate compliance with the control efficiency (95% for VOC) of the thermal oxidizer; and

vii. verify the expected emissions for single and combined HAPs.

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

i. for $PM_{10,}$ Methods 201 and 202 of 40 CFR Part 51, Appendix M for condensibles;
ii. for NOx, Methods 1-4 and 7 of 40 CFR Part 60, Appendix A;
iii. for CO, Methods 1-4 and 10 of 40 CFR Part 60, Appendix A;
iv. for SO_2, Methods 1-4 and 6c of 40 CFR Part 60, Appendix A;
v. for VOC Methods 1-4 and 18, 25 or 25A, as appropriate, of 40 CFR Part 60, Appendix A.
Appropriate methods shall be used in conjunction with the test methods and procedures specified in Methods 18, 25, or 25A of 40 CFR Part 60, Appendix A for determining VOC mass emissions; and
vi. for HAPs (specifically pollutants acetaldehyde, acrolein, formaldehyde, formic acid, hexane and methanol), Methods 18 or 320 from 40 CFR Part 60, Appendix A.

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

d. The <u>control efficiency</u> (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in Methods 18, 25, or 25A of 40 CFR Part 60, Appendix A for VOC emissions . The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases."

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

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

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

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

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

a. Emission Limitation
Combined CO emissions from B001, B002, P005, P007, P008, P009, P011 (except emissions vented to the flare) and P902 (except emissions vented to Stack S70) shall not exceed 20.70 lbs CO/hr and 90.29 tons CO/year.

Applicable Compliance Method
Compliance with the hourly allowable emission limitation shall be demonstrated through performance testing as described in Section E.1 above.

The annual emission limitation was developed by multiplying the maximum annual throughput of 392,568 tons DDGS/year (the maximum annual throughput for emissions unit P902) by a company-supplied emission factor of 0.46 lb CO/ton DDGS and multiplying by 0.0005 ton/lb. Therefore, if compliance is shown with the maximum annual throughput for DDGS and the CO emission factor is verified through testing, compliance with the annual limitation shall be assumed.

b. Emissions Limitation
Combined NO_X emissions from B001, B002, P005, P007, P008, P009, P011 (except emissions vented to the flare) and P902 (except emissions vented to Stack S70) shall not exceed 21.20 lbs NO_X/hr and 92.86 tons NO_X/year.

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Applicable Compliance Method
Compliance with the hourly allowable emission limitation above shall be demonstrated through the data recorded by the continuous emissions monitor. Compliance with the hourly allowable emission limitation shall also be based on the results of emission testing conducted in accordance with performance testing as described in Sections E.1 and E.2 above.

The annual emission limitation was developed by multiplying the hourly emission limitation by a maximum operating schedule of 8760 hours/year and dividing by 2,000 pounds/ton. Therefore, if compliance is shown with the hourly limitation, compliance with the annual limitation shall be assumed.

c. Emissions Limitation
Combined SO_2 emissions from B001, B002, P005, P007, P008, P009, P011 (except emissions vented to the flare) and P902 (except emissions vented to Stack S70) shall not exceed 20.52 lbs SO_2/hr and 89.51 tons SO_2/year.

Applicable Compliance Method
Compliance with the hourly allowable emission limitation shall be demonstrated through performance testing as described in Section E.1 above.

The annual emission limitation was developed by multiplying the maximum annual throughput of 392,568 tons DDGS/year (the maximum annual throughput for emissions unit P902) by a company-supplied emission factor of 0.456 lb SO2/ton DDGS and multiplying by 0.0005 ton/lb. Therefore, if compliance is shown with the maximum annual throughput for DDGS and the SO2 emission factor is verified through testing, compliance with the annual limitation shall be assumed.

d. Emissions Limitation
Combined PM_{10} emissions from B001, B002, P005, P007, P008, P009, P011 (except emissions vented to the flare) and P902 (except emissions vented to Stack S70) shall not exceed 4.50 lbs PM10/hr and 19.63 tons PM10/year.

Applicable Compliance Method
Compliance with the hourly allowable emission limitation shall be demonstrated through performance testing as described in Section E.1 above.

The annual emission limitation was developed by multiplying the maximum annual throughput of 392,568 tons DDGS/year (the maximum annual throughput for emissions unit P902) by a company-supplied emission factor of 0.10 lb PM10/ton DDGS and multiplying by 0.0005 ton/lb. Therefore, if compliance is shown with the maximum annual throughput for DDGS and the PM10 emission

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factor is verified through testing, compliance with the annual limitation shall be assumed.

e. Emissions Limitation
Combined VOC emissions from B001, B002, P005, P007, P008, P009, P011 (except emissions vented to the flare) and P902 (except emissions vented to Stack S70) shall not exceed 5.40 lbs VOC/hr and 23.55 tons VOC/year.

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Applicable Compliance Method
Compliance with the hourly allowable emission limitation shall be demonstrated through performance testing as described in Section E.1 above.

The annual emission limitation was developed by multiplying the maximum annual throughput of 392,568 tons DDGS/year (the maximum annual throughput for emissions unit P902) by a company-supplied emission factor of 0.12 lb VOC/ton DDGS and multiplying by 0.0005 ton/lb. Therefore, if compliance is shown with the maximum annual throughput for DDGS and the VOC emission factor is verified through testing, compliance with the annual limitation shall be assumed.

f. Emissions Limitation
Visible PE from the stack serving this emissions unit shall not exceed 5% opacity, as a six-minute average.

Applicable Compliance Method
If required, compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

g. Emissions Limitation
The recuperative thermal oxidizer shall meet a minimum destruction efficiency of 95% of VOC emissions.

Applicable Compliance Method
Compliance with the control efficiency requirements above shall be demonstrated based on the results of emission testing conducted in accordance with the methods outlined in Section E.1 of this permit.

h. Emissions Limitation
The recuperative thermal oxidizer shall meet a minimum destruction efficiency of 95% of CO emissions.

Applicable Compliance Method
Compliance with the CO destruction efficiency shall be assumed as long as compliance with the hourly CO mass emission limitation is maintained. [Due to the creation of CO in the RTO, it is not possible to perform testing to demonstrate compliance directly associated with the destruction of CO entering the RTO.]

i. Emissions Limitation
The thermal oxidizer control system shall meet a minimum control efficiency of 95% of PM10 emissions including the use of a multiclone for the removal of

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particulate matter prior to entering the thermal oxidizers. The control system shall result in a mass emission rate of 4.50 lbs PM10 /hour from the thermal oxidizers;

Applicable Compliance Method
Compliance with the PM10 control efficiency shall be assumed as long as compliance with the hourly PM10 mass emission limitation is maintained.

F. Miscellaneous Requirements

None

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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 - (P008) - DDGS Drying Operation [(2) 45 mmBtu/hr Dryers A and B] Controlled with Recuperative Thermal Oxidizers

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	Combined process and combustion emissions from B001, B002, P005, P007, P008, P009, P011 (except emissions vented to the flare) and P902 (except emissions vented to Stack S70) after control shall not exceed: 20.70 lbs/hr of carbon monoxide (CO), 90.29 tons CO/year; 21.20 lbs/hr of nitrogen oxides (NO_X), 92.86 tons NO_X/year; 20.52 lbs/hr of sulfur dioxide (SO_2), 89.51 tons SO_2/year; 5.40 lbs/hr of volatile organic compounds (VOC), 23.55 tons VOC/year 4.50 pounds of particulate matter 10 microns or less in diameter (PM10)/hour and 19.63 tons PM10/year. Visible PE shall not exceed 5% opacity, as a six-minute average. The requirements of this rule also include compliance with the requirements of OAC rules 3745-21-08(B), 3745-21-09(DD) and 40 CFR Part 60, Subpart VV.
OAC rule 3745-17-07(A)(1)	Visible PE shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
OAC rule 3745-17-11(A)(2) OAC rule 3745-17-10(B)(1) OAC rule 3745-18-06(E)	The emission limitations specified by these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).

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Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-21-08(B)	See A.2.b.
OAC rule 3745-114-01 ORC 3704.03(F)	See A.III.2.

2. Additional Terms and Conditions

2.a The design of the emissions unit and the technology associated with the current operating practices satisfy the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B).

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. On June 24, 2003, the rule revision was submitted to U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision 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 Best available technology (BAT) control requirements for this emissions unit has been determined to be venting of emissions to a thermal oxidizer control system which meets the following:

i. 95% destruction efficiency for VOC;

ii 90% destruction efficiency for CO; and

iii. 95% control efficiency for PM10 including the use of a multiclone for the removal of particulate matter prior to entering the thermal oxidizers. The control system shall result in a mass emission rate of 4.50 lbs PM10 /hour from the thermal oxidizers.

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

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2.d All particulate matter is PM10.

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B. Operational Restrictions

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

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 properly install, operate, and maintain equipment to continuously monitor and record the combustion temperature, in degrees Fahrenheit, within the thermal oxidizer during operation of this emissions unit, including periods of startup and shutdown. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer"s recommendations, instructions, and operating manual(s).

   Whenever the monitored value for the combustion temperature deviates from the value specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

   In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment to the acceptable value specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the combustion temperature reading immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

   The acceptable value for the average combustion temperature within the thermal oxidizer, for all 3-hour blocks of time, when the emissions unit was in operation, shall not be more than 50 degrees Fahrenheit below the average temperature maintained during the most recent emissions test that demonstrated the emissions unit to be in compliance or the minimum average combustion temperature within the thermal oxidizer recommended by the thermal oxidizer manufacturer until such testing is completed.

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This value is effective for the duration of this permit. In addition, approved revisions to the value will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

3. The permit to install was evaluated based on the actual materials and the design parameters of each emissions unit's exhaust system, as specified by the permittee in the permit to install application. Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by these emissions units using data from the permit to install application and the ISCST3 model (or other Ohio EPA approved model). The maximum ambient impact from the use of the ISCST3 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 (mg/m^3): 176.24
Maximum Hourly Emission Rate (lbs/hr): 0.76
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 5.14 (entire facility)
MAGLC (ug/m^3): 4,196

Pollutant: Acetaldehyde
TLV (mg/m^3): 33.20
Maximum Hourly Emission Rate (lbs/hr): 1.96
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 92.60 (entire facility)
MAGLC (ug/m^3): 790

Pollutant: Formaldehyde
TLV (mg/m^3): 0.272
Maximum Hourly Emission Rate (lbs/hr): 0.45
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 3.20 (entire facility)
MAGLC (ug/m^3): 6.47

Pollutant: Formic Acid
TLV (mg/m^3): 9.411
Maximum Hourly Emission Rate (lbs/hr): 0.31
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 19.27 (entire facility)
MAGLC (ug/m^3): 224.07

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

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the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

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

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

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

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of air toxic 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) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

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

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

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

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

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in the emissions unit. These reports shall be

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submitted to Ohio EPA, Northwest District Office (NWDO) within 30 days after the deviation occurs.

2. The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:

   a. each period of time when the combustion temperature within the thermal oxidizer was not equal to the acceptable value;

   b. an identification of each incident of deviation described in (a) where a prompt investigation was not conducted;

   c. an identification of each incident of deviation described in (a) where prompt corrective action, that would bring the combustion temperature into compliance with the acceptable value, was determined to be necessary and was not taken; and

   d. an identification of each incident of deviation described in (a) where proper records were not maintained for the investigation and/or the corrective action.

   These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

E. Testing Requirements

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

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

   b. The emission testing shall be conducted to:

      i. demonstrate compliance with the allowable combined emission limitation for CO of 20.70 lbs/hr;

      ii. demonstrate compliance with the allowable combined emission limitation for NO_X of 21.20 lbs/hr;

      iii. demonstrate compliance with the allowable combined emission limitation for SO_2 of 20.52 lbs/hr;

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iv. demonstrate compliance with the allowable combined emission limitation for PM_{10} of 4.50 lbs/hr;

v. demonstrate compliance with the allowable combined emission limitation for VOC of 5.40 lbs/hr;

vi. demonstrate compliance with the control efficiency (95% for VOC) of the thermal oxidizer; and

vii. verify the expected emissions for single and combined HAPs.

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

i. for $PM_{10,}$ Methods 201 and 202 of 40 CFR Part 51, Appendix M for condensibles;
ii. for NOx, Methods 1-4 and 7 of 40 CFR Part 60, Appendix A;
iii. for CO, Methods 1-4 and 10 of 40 CFR Part 60, Appendix A;
iv. for SO_2, Methods 1-4 and 6c of 40 CFR Part 60, Appendix A;
v. for VOC Methods 1-4 and 18, 25 or 25A, as appropriate, of 40 CFR Part 60, Appendix A.
Appropriate methods shall be used in conjunction with the test methods and procedures specified in Methods 18, 25, or 25A of 40 CFR Part 60, Appendix A for determining VOC mass emissions; and
vi. for HAPs (specifically pollutants acetaldehyde, acrolein, formaldehyde, formic acid, hexane and methanol), Methods 18 or 320 from 40 CFR Part 60, Appendix A.

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

d. The <u>control efficiency</u> (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in Methods 18, 25, or 25A of 40 CFR Part 60, Appendix A for VOC emissions . The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases."

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

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

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

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

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

a. Emission Limitation
Combined CO emissions from B001, B002, P005, P007, P008, P009, P011 (except emissions vented to the flare) and P902 (except emissions vented to Stack S70) shall not exceed 20.70 lbs CO/hr and 90.29 tons CO/year.

Applicable Compliance Method
Compliance with the hourly allowable emission limitation shall be demonstrated through performance testing as described in Section E.1 above.

The annual emission limitation was developed by multiplying the maximum annual throughput of 392,568 tons DDGS/year (the maximum annual throughput for emissions unit P902) by a company-supplied emission factor of 0.46 lb CO/ton DDGS and multiplying by 0.0005 ton/lb. Therefore, if compliance is shown with the maximum annual throughput for DDGS and the CO emission factor is verified through testing, compliance with the annual limitation shall be assumed.

b. Emissions Limitation
Combined NO_X emissions from B001, B002, P005, P007, P008, P009, P011 (except emissions vented to the flare) and P902 (except emissions vented to Stack S70) shall not exceed 21.20 lbs NO_X/hr and 92.86 tons NO_X/year.

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Applicable Compliance Method
Compliance with the hourly allowable emission limitation above shall be demonstrated through the data recorded by the continuous emissions monitor. Compliance with the hourly allowable emission limitation shall also be based on the results of emission testing conducted in accordance with performance testing as described in Sections E.1 and E.2 above.

The annual emission limitation was developed by multiplying the hourly emission limitation by a maximum operating schedule of 8760 hours/year and dividing by 2,000 pounds/ton. Therefore, if compliance is shown with the hourly limitation, compliance with the annual limitation shall be assumed.

c. Emissions Limitation
Combined SO_2 emissions from B001, B002, P005, P007, P008, P009, P011 (except emissions vented to the flare) and P902 (except emissions vented to Stack S70) shall not exceed 20.52 lbs SO_2/hr and 89.51 tons SO_2/year.

Applicable Compliance Method
Compliance with the hourly allowable emission limitation shall be demonstrated through performance testing as described in Section E.1 above.

The annual emission limitation was developed by multiplying the maximum annual throughput of 392,568 tons DDGS/year (the maximum annual throughput for emissions unit P902) by a company-supplied emission factor of 0.456 lb SO2/ton DDGS and multiplying by 0.0005 ton/lb. Therefore, if compliance is shown with the maximum annual throughput for DDGS and the SO2 emission factor is verified through testing, compliance with the annual limitation shall be assumed.

d. Emissions Limitation
Combined PM_{10} emissions from B001, B002, P005, P007, P008, P009, P011 (except emissions vented to the flare) and P902 (except emissions vented to Stack S70) shall not exceed 4.50 lbs PM10/hr and 19.63 tons PM10/year.

Applicable Compliance Method
Compliance with the hourly allowable emission limitation shall be demonstrated through performance testing as described in Section E.1 above.

The annual emission limitation was developed by multiplying the maximum annual throughput of 392,568 tons DDGS/year (the maximum annual throughput for emissions unit P902) by a company-supplied emission factor of 0.10 lb PM10/ton DDGS and multiplying by 0.0005 ton/lb. Therefore, if compliance is shown with the maximum annual throughput for DDGS and the PM10 emission

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factor is verified through testing, compliance with the annual limitation shall be assumed.

e. Emissions Limitation
Combined VOC emissions from B001, B002, P005, P007, P008, P009, P011 (except emissions vented to the flare) and P902 (except emissions vented to Stack S70) shall not exceed 5.40 lbs VOC/hr and 23.55 tons VOC/year.

Applicable Compliance Method
Compliance with the hourly allowable emission limitation shall be demonstrated through performance testing as described in Section E.1 above.

The annual emission limitation was developed by multiplying the maximum annual throughput of 392,568 tons DDGS/year (the maximum annual throughput for emissions unit P902) by a company-supplied emission factor of 0.12 lb VOC/ton DDGS and multiplying by 0.0005 ton/lb. Therefore, if compliance is shown with the maximum annual throughput for DDGS and the VOC emission factor is verified through testing, compliance with the annual limitation shall be assumed.

f. Emissions Limitation
Visible PE from the stack serving this emissions unit shall not exceed 5% opacity, as a six-minute average.

Applicable Compliance Method
If required, compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

g. Emissions Limitation
The recuperative thermal oxidizer shall meet a minimum destruction efficiency of 95% of VOC emissions.

Applicable Compliance Method
Compliance with the control efficiency requirements above shall be demonstrated based on the results of emission testing conducted in accordance with the methods outlined in Section E.1 of this permit.

h. Emissions Limitation
The recuperative thermal oxidizer shall meet a minimum destruction efficiency of 95% of CO emissions.

Applicable Compliance Method

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Compliance with the CO destruction efficiency shall be assumed as long as compliance with the hourly CO mass emission limitation is maintained. [Due to the creation of CO in the RTO, it is not possible to perform testing to demonstrate compliance directly associated with the destruction of CO entering the RTO.]

i. Emissions Limitation
The thermal oxidizer control system shall meet a minimum control efficiency of 95% of PM10 emissions including the use of a multiclone for the removal of particulate matter prior to entering the thermal oxidizers. The control system shall result in a mass emission rate of 4.50 lbs PM10 /hour from the thermal oxidizers;

Applicable Compliance Method
Compliance with the PM10 control efficiency shall be assumed as long as compliance with the hourly PM10 mass emission limitation is maintained.

F. Miscellaneous Requirements

None

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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 -(P009) - DDGS Drying Operation [(2) 45 mmBtu/hr Dryers C and D] Controlled with Recuperative Thermal Oxidizers

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	Combined process and combustion emissions from B001, B002, P005, P007, P008, P009, P011 (except emissions vented to the flare) and P902 (except emissions vented to Stack S70) after control shall not exceed: 20.70 lbs/hr of carbon monoxide (CO), 90.29 tons CO/year; 21.20 lbs/hr of nitrogen oxides (NO_X), 92.86 tons NO_X/year; 20.52 lbs/hr of sulfur dioxide (SO_2), 89.51 tons SO_2/year; 5.40 lbs/hr of volatile organic compounds (VOC), 23.55 tons VOC/year 4.50 pounds of particulate matter 10 microns or less in diameter (PM10)/hour and 19.63 tons PM10/year. Visible PE shall not exceed 5% opacity, as a six-minute average. The requirements of this rule also include compliance with the requirements of OAC rules 3745-21-08(B), 3745-21-09(DD) and 40 CFR Part 60, Subpart VV.
OAC rule 3745-17-07(A)(1)	Visible PE shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
OAC rule 3745-17-11(A)(2) OAC rule 3745-17-10(B)(1) OAC rule 3745-18-06(E)	The emission limitations specified by these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
OAC rule 3745-21-08(B)	See A.2.b.

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Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-114-01 ORC 3704.03(F)	See A.III.2.

2. Additional Terms and Conditions

2.a The design of the emissions unit and the technology associated with the current operating practices satisfy the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B).

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. On June 24, 2003, the rule revision was submitted to U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision 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 Best available technology (BAT) control requirements for this emissions unit has been determined to be venting of emissions to a thermal oxidizer control system which meets the following:

i. 95% destruction efficiency for VOC;

ii 90% destruction efficiency for CO; and

iii. 95% control efficiency for PM10 including the use of a multiclone for the removal of particulate matter prior to entering the thermal oxidizers. The control system shall result in a mass emission rate of 4.50 lbs PM10 /hour from the thermal oxidizers.

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

2.d All particulate matter is PM10.

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B. Operational Restrictions

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

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 properly install, operate, and maintain equipment to continuously monitor and record the combustion temperature, in degrees Fahrenheit, within the thermal oxidizer during operation of this emissions unit, including periods of startup and shutdown. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer''s recommendations, instructions, and operating manual(s).

   Whenever the monitored value for the combustion temperature deviates from the value specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

   In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment to the acceptable value specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the combustion temperature reading immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

   The acceptable value for the average combustion temperature within the thermal oxidizer, for all 3-hour blocks of time, when the emissions unit was in operation, shall not be more than 50 degrees Fahrenheit below the average temperature maintained during the most recent emissions test that demonstrated the emissions unit to be in compliance or the minimum average combustion temperature within the thermal oxidizer recommended by the thermal oxidizer manufacturer until such testing is completed.

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This value is effective for the duration of this permit. In addition, approved revisions to the value will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

3. The permit to install was evaluated based on the actual materials and the design parameters of each emissions unit's exhaust system, as specified by the permittee in the permit to install application. Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by these emissions units using data from the permit to install application and the ISCST3 model (or other Ohio EPA approved model). The maximum ambient impact from the use of the ISCST3 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 (mg/m^3): 176.24
Maximum Hourly Emission Rate (lbs/hr): 0.76
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 5.14 (entire facility)
MAGLC (ug/m^3): 4,196

Pollutant: Acetaldehyde
TLV (mg/m^3): 33.20
Maximum Hourly Emission Rate (lbs/hr): 1.96
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 92.60 (entire facility)
MAGLC (ug/m^3): 790

Pollutant: Formaldehyde
TLV (mg/m^3): 0.272
Maximum Hourly Emission Rate (lbs/hr): 0.45
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 3.20 (entire facility)
MAGLC (ug/m^3): 6.47

Pollutant: Formic Acid
TLV (mg/m^3): 9.411
Maximum Hourly Emission Rate (lbs/hr): 0.31
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 19.27 (entire facility)
MAGLC (ug/m^3): 224.07

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

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the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

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

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

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

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of air toxic 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) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

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

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

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

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

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in the emissions unit. These reports shall be

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submitted to Ohio EPA, Northwest District Office (NWDO) within 30 days after the deviation occurs.

2. The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:

   a. each period of time when the combustion temperature within the thermal oxidizer was not equal to the acceptable value;

   b. an identification of each incident of deviation described in (a) where a prompt investigation was not conducted;

   c. an identification of each incident of deviation described in (a) where prompt corrective action, that would bring the combustion temperature into compliance with the acceptable value, was determined to be necessary and was not taken; and

   d. an identification of each incident of deviation described in (a) where proper records were not maintained for the investigation and/or the corrective action.

   These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

E. Testing Requirements

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

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

   b. The emission testing shall be conducted to:

      i. demonstrate compliance with the allowable combined emissions limitation for CO of 20.70 lbs/hr;

      ii. demonstrate compliance with the allowable combined emissions limitation for NO_X of 21.20 lbs/hr;

      iii. demonstrate compliance with the allowable combined emissions limitation for SO_2 of 20.52 lbs/hr;

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iv. demonstrate compliance with the allowable combined emissions limitation for PM_{10} of 4.50 lbs/hr;

v. demonstrate compliance with the allowable combined emissions limitation for VOC of 5.40 lbs/hr;

vi. demonstrate compliance with the control efficiency (95% for VOC) of the thermal oxidizer; and

vii. verify the expected emissions for single and combined HAPs.

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

i. for $PM_{10,}$ Methods 201 and 202 of 40 CFR Part 51, Appendix M for condensibles;
ii. for NOx, Methods 1-4 and 7 of 40 CFR Part 60, Appendix A;
iii. for CO, Methods 1-4 and 10 of 40 CFR Part 60, Appendix A;
iv. for SO_2, Methods 1-4 and 6c of 40 CFR Part 60, Appendix A;
v. for VOC Methods 1-4 and 18, 25 or 25A, as appropriate, of 40 CFR Part 60, Appendix A.
Appropriate methods shall be used in conjunction with the test methods and procedures specified in Methods 18, 25, or 25A of 40 CFR Part 60, Appendix A for determining VOC mass emissions; and
vi. for HAPs (specifically pollutants acetaldehyde, acrolein, formaldehyde, formic acid, hexane and methanol), Methods 18 or 320 from 40 CFR Part 60, Appendix A.

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

d. The <u>control efficiency</u> (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in Methods 18, 25, or 25A of 40 CFR Part 60, Appendix A for VOC emissions . The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases."

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

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

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

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

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

a. Emission Limitation
Combined CO emissions from B001, B002, P005, P007, P008, P009, P011 (except emissions vented to the flare) and P902 (except emissions vented to Stack S70) shall not exceed 20.70 lbs CO/hr and 90.29 tons CO/year.

Applicable Compliance Method
Compliance with the hourly allowable emission limitation shall be demonstrated through performance testing as described in Section E.1 above.

The annual emission limitation was developed by multiplying the maximum annual throughput of 392,568 tons DDGS/year (the maximum annual throughput for emissions unit P902) by a company-supplied emission factor of 0.46 lb CO/ton DDGS and multiplying by 0.0005 ton/lb. Therefore, if compliance is shown with the maximum annual throughput for DDGS and the CO emission factor is verified through testing, compliance with the annual limitation shall be assumed.

b. Emissions Limitation
Combined NO_X emissions from B001, B002, P005, P007, P008, P009, P011 (except emissions vented to the flare) and P902 (except emissions vented to Stack S70) shall not exceed 21.20 lbs NO_X/hr and 92.86 tons NO_X/year.

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Applicable Compliance Method
Compliance with the hourly allowable emission limitation above shall be demonstrated through the data recorded by the continuous emissions monitor. Compliance with the hourly allowable emission limitation shall also be based on the results of emission testing conducted in accordance with performance testing as described in Sections E.1 and E.2 above.

The annual emission limitation was developed by multiplying the hourly emission limitation by a maximum operating schedule of 8760 hours/year and dividing by 2,000 pounds/ton. Therefore, if compliance is shown with the hourly limitation, compliance with the annual limitation shall be assumed.

c. Emissions Limitation
Combined SO_2 emissions from B001, B002, P005, P007, P008, P009, P011 (except emissions vented to the flare) and P902 (except emissions vented to Stack S70) shall not exceed 20.52 lbs SO_2/hr and 89.51 tons SO_2/year.

Applicable Compliance Method
Compliance with the hourly allowable emission limitation shall be demonstrated through performance testing as described in Section E.1 above.

The annual emission limitation was developed by multiplying the maximum annual throughput of 392,568 tons DDGS/year (the maximum annual throughput for emissions unit P902) by a company-supplied emission factor of 0.456 lb SO2/ton DDGS and multiplying by 0.0005 ton/lb. Therefore, if compliance is shown with the maximum annual throughput for DDGS and the SO2 emission factor is verified through testing, compliance with the annual limitation shall be assumed.

d. Emissions Limitation
Combined PM_{10} emissions from B001, B002, P005, P007, P008, P009, P011 (except emissions vented to the flare) and P902 (except emissions vented to Stack S70) shall not exceed 4.50 lbs PM10/hr and 19.63 tons PM10/year.

Applicable Compliance Method
Compliance with the hourly allowable emission limitation shall be demonstrated through performance testing as described in Section E.1 above.

The annual emission limitation was developed by multiplying the maximum annual throughput of 392,568 tons DDGS/year (the maximum annual throughput for emissions unit P902) by a company-supplied emission factor of 0.10 lb PM10/ton DDGS and multiplying by 0.0005 ton/lb. Therefore, if compliance is shown with the maximum annual throughput for DDGS and the PM10 emission

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factor is verified through testing, compliance with the annual limitation shall be assumed.

e. Emissions Limitation
Combined VOC emissions from B001, B002, P005, P007, P008, P009, P011 (except emissions vented to the flare) and P902 (except emissions vented to Stack S70) shall not exceed 5.40 lbs VOC/hr and 23.55 tons VOC/year.

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Applicable Compliance Method
Compliance with the hourly allowable emission limitation shall be demonstrated through performance testing as described in Section E.1 above.

The annual emission limitation was developed by multiplying the maximum annual throughput of 392,568 tons DDGS/year (the maximum annual throughput for emissions unit P902) by a company-supplied emission factor of 0.12 lb VOC/ton DDGS and multiplying by 0.0005 ton/lb. Therefore, if compliance is shown with the maximum annual throughput for DDGS and the VOC emission factor is verified through testing, compliance with the annual limitation shall be assumed.

f. Emissions Limitation
Visible PE from the stack serving this emissions unit shall not exceed 5% opacity, as a six-minute average.

Applicable Compliance Method
If required, compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

g. Emissions Limitation
The recuperative thermal oxidizer shall meet a minimum destruction efficiency of 95% of VOC emissions.

Applicable Compliance Method
Compliance with the control efficiency requirements above shall be demonstrated based on the results of emission testing conducted in accordance with the methods outlined in Section E.1 of this permit.

h. Emissions Limitation
The recuperative thermal oxidizer shall meet a minimum destruction efficiency of 95% of CO emissions.

Applicable Compliance Method
Compliance with the CO destruction efficiency shall be assumed as long as compliance with the hourly CO mass emission limitation is maintained. [Due to the creation of CO in the RTO, it is not possible to perform testing to demonstrate compliance directly associated with the destruction of CO entering the RTO.]

i. Emissions Limitation
The thermal oxidizer control system shall meet a minimum control efficiency of 95% of PM10 emissions including the use of a multiclone for the removal of

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particulate matter prior to entering the thermal oxidizers. The control system shall result in a mass emission rate of 4.50 lbs PM10 /hour from the thermal oxidizers;

Applicable Compliance Method
Compliance with the PM10 control efficiency shall be assumed as long as compliance with the hourly PM10 mass emission limitation is maintained.

F. Miscellaneous Requirements

None

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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 - (P010) - Cooling Tower

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	Particulate emissions (PE)shall not exceed 3.13 lbs/hr and 13.70 tons/year PE equal to or less than 10 microns in size (PM10) shall not exceed 0.56 lb/hr and 2.45 tons/year Visible PE shall not exceed 10% opacity, as a six-minute average. See A.2.a.
OAC rule 3745-17-07(A) and 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 The Best Available Technology (BAT) control requirements for this emissions unit has been determined to be use of high efficiency drift eliminators.

B. Operational Restrictions

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

C. Monitoring and/or Recordkeeping Requirements

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

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D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports which identify any exceedances of the total dissolved solids content listed in Section B.1 above. These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A 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:
   PE shall not exceed 3.13 lbs/hr and 13.70 ton/year.

   Applicable Compliance Methods:
   Compliance shall be determined by multiplying the maximum circulating water flow (3,000,000 gal/hr) by the density of water (8.34 lb/gal), the percent drift (0.005%), and the maximum total dissolved solids concentration (2,500 lb solids/1,000,000 lbs water).

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

   The annual emission limitation was developed by multiplying the hourly emission limitation by the maximum operating schedule of 8760 hours/year, and then dividing by 2000 lbs/ton. Therefore, if compliance is shown with the hourly limitation, compliance with the annual limitation shall be assumed.

   b. Emission Limitations:
   PM10 shall not exceed 0.56 lb/hr and 2.45 ton/year

   Applicable Compliance Methods:
   Compliance shall be determined by multiplying the maximum PE emission rate of 3.13 lbs/hr by the PM10 percentage of PE (0.18%). The PM10 faction percentage is based on information from Hennen et al, "Cooling Tower Emissions Quantification Using the Cooling Technology Institute Test Code ATC 140" (2/03) and J Reisman and G. Frisbie, "Calculating Realistic PM10 Emissions from Cooling Towers".

   If required, the permittee shall submit a testing proposal to demonstrate that the maximum PM10 percentage does not exceed 0.18 percent.

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The annual emission limitation was developed by multiplying the hourly emission limitation by the maximum operating schedule of 8760 hours/year, and then dividing by 2000 lbs/ton. Therefore, if compliance is shown with the hourly limitation, compliance with the annual limitation shall be assumed.

c. Emission Limitation:
Visible PE shall not exceed 10% opacity as a six-minute average.

Applicable Compliance Method:
Compliance with the visible emission limitation shall be demonstrated in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources").

F. Miscellaneous Requirements

None

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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 -(P011) - Methanators vented to DDGS Drying Operations (P008 and P009) or to a Flare

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	Combined process and combustion emissions from B001, B002, P005, P007, P008, P009, P011 (except emissions vented to the flare) and P902 (except emissions vented to Stack S70) after control shall not exceed: 20.70 lbs/hr of carbon monoxide (CO), 90.29 tons CO/year; 21.20 lbs/hr of nitrogen oxides (NO_X), 92.86 tons NO_X/year; 20.52 lbs/hr of sulfur dioxide (SO_2), 89.51 tons SO_2/year; 5.40 lbs/hr of volatile organic compounds (VOC), 23.55 tons VOC/year 4.50 pounds of particulate matter 10 microns or less in diameter (PM10)/hour and 19.63 tons PM10/year. Visible PE from the stack serving this emissions unit shall not exceed 5% opacity, as a six-minute average. Emissions exhausted through the flare shall not exceed: 0.61 ton CO/year 0.15 ton NO_X/year 0.08 ton VOC/year

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	See Section A.2.a. The requirements of this rule also include compliance with the requirements of OAC rules 3745-21-08(B), 3745-21-09(DD) and 40 CFR Part 60, Subpart VV.
OAC rule 3745-17-07(A)(1) OAC rule 3745-17-11(B)(1) OAC rule 3745-18-06(E)	The emission limitations specified by these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
OAC rule 3745-21-08(B)	See A.2.c.
OAC rule 3745-114-01 ORC 3704.03(F)	See A.III.4.
OAC rule 3745-21-09(DD) and 40 CFR Part 60, Subpart VV	See the requirements for emissions unit P801.

2. Additional Terms and Conditions

2.a Flare emissions associated with this emissions unit do not represent a "worst-case" emissions scenario and are not accounted for in the facility potential to emit calculations. The "worst-case" emissions scenario is emissions from the methanators is vented to emissions units P008 and P009. Therefore, emissions have already been accounted for in the potential to emit calculations.

2.b The design of the emissions unit and the technology associated with the current operating practices satisfy the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B).

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. On June 24, 2003, the rule revision was submitted to U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision 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 Best available technology (BAT) control requirements for this emissions unit has been determined to be the following:

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i. the use of the natural gas-fired thermal oxidizers to control VOC at 95% (or when this emissions unit is not vented to the thermal oxidizers, it will be vented to the flare to control VOC at 98%);

ii. maintain enclosures and vent all the emissions to the thermal oxidizers to ensure compliance; and

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

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

2.e The flare shall meet the following requirements:

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

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

B. Operational Restrictions

None

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall properly install, operate, and maintain equipment to continuously monitor and record the combustion temperature, in degrees Fahrenheit, within the thermal oxidizer during operation of this emissions unit, including periods of startup and shutdown. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

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Whenever the monitored value for the combustion temperature deviates from the value specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment to the acceptable value specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the combustion temperature reading immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The acceptable value for the average combustion temperature within the thermal oxidizer, for all 3-hour blocks of time, when the emissions unit was in operation, shall not be more than 50 degrees Fahrenheit below the average temperature maintained during the most recent emissions test that demonstrated the emissions unit to be in compliance or the minimum average combustion temperature within the thermal oxidizer recommended by the thermal oxidizer manufacturer until such testing is completed.

This value is effective for the duration of this permit. In addition, approved revisions to the value will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

2. The permittee shall maintain monthly records of each start-up time and shut-down time of the flare associated with this emissions unit and shall specify the total down time, the shut-down time and start-up time of DDGS Drying Operations (P008 and P009).

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

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

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

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

c. the permittee shall maintain records of the following:

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

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

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

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

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

4. The permit to install was evaluated based on the actual materials and the design parameters of each emissions unit's exhaust system, as specified by the permittee in the permit to install application. Ohio EPA's “Review of New Sources of Air Toxic Emissions” policy ("Air Toxic Policy") was applied for each pollutant emitted by these emissions units using data from the permit to install application and the ISCST3 model (or other Ohio EPA approved model). The maximum ambient impact from the use of the ISCST3 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 (mg/m^3): 176.24
Maximum Hourly Emission Rate (lbs/hr): 0.76
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 5.14 (entire facility)
MAGLC (ug/m^3): 4,196

Pollutant: Acetaldehyde
TLV (mg/m^3): 33.20
Maximum Hourly Emission Rate (lbs/hr): 1.96
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 92.60 (entire facility)
MAGLC (ug/m^3): 790

Pollutant: Formaldehyde

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TLV (mg/m^3): 0.272
Maximum Hourly Emission Rate (lbs/hr): 0.45
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 3.20 (entire facility)
MAGLC (ug/m^3): 6.47

Pollutant: Formic Acid
TLV (mg/m^3): 9.411
Maximum Hourly Emission Rate (lbs/hr): 0.31
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 19.27 (entire facility)
MAGLC (ug/m^3): 224.07

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

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

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

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

If the permittee determines that the “Air Toxic Policy” will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a “modification” under OAC rule 3745-31-01 solely due to the emissions of any type of air toxic 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) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

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

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

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

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

D. Reporting Requirements

1. The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:

   a. each period of time when the combustion temperature within the thermal oxidizer was not equal to the acceptable value;

   b. an identification of each incident of deviation described in (a) where a prompt investigation was not conducted;

   c. an identification of each incident of deviation described in (a) where prompt corrective action, that would bring the combustion temperature into compliance with the acceptable value, was determined to be necessary and was not taken; and

   d. an identification of each incident of deviation described in (a) where proper records were not maintained for the investigation and/or the corrective action.

   These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

2. The permittee shall submit annual reports which specify:

   a. the start-up time and shut-down time of the flare associated with this emission unit and the total down time, the shut-down time and start-up time of DDGS Drying Operations P008 and P009.

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b. any period of time when the flare associated with this emissions unit was operated while the DDGS Drying Operations P008 and P009 were operational.

The permittee shall also identify any corrective actions that were taken to achieve compliance. These reports shall be submitted by January 31 or each year.

3. The permittee shall submit an annual report to the director (the appropriate District Office or local air agency) in writing, of whether the operations of the source are consistent with the information regarding the operations that was used to conduct the modeling. The director may consider any significant departure from the operations of the source described in the permit to install application that results in greater emissions than the emissions rate modeled to determine the ground level concentration as a modification and require the owner or operator to submit a permit to install application for the increased emissions.

E. Testing Requirements

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

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

b. The emission testing shall be conducted to:

i. demonstrate compliance with the allowable combined emission limitation for CO of 20.70 lbs/hr;

ii. demonstrate compliance with the allowable combined emission limitation for NO_X of 21.20 lbs/hr;

iii. demonstrate compliance with the allowable combined emission limitation for SO_2 of 20.52 lbs/hr;

iv. demonstrate compliance with the allowable combined emission limitation for PM_{10} of 4.50 lbs/hr;

v. demonstrate compliance with the allowable combined emission limitation for VOC of 5.40 lbs/hr;

vi. demonstrate compliance with the control efficiency (95% for VOC) of the thermal oxidizer; and

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vii. verify the expected emissions for single and combined HAPs.

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

i. for $PM_{10,}$ Methods 201 and 202 of 40 CFR Part 51, Appendix M for condensibles;
ii. for NOx, Methods 1-4 and 7 of 40 CFR Part 60, Appendix A;
iii. for CO, Methods 1-4 and 10 of 40 CFR Part 60, Appendix A;
iv. for SO_2, Methods 1-4 and 6c of 40 CFR Part 60, Appendix A;
v. for VOC Methods 1-4 and 18, 25 or 25A, as appropriate, of 40 CFR Part 60, Appendix A.
Appropriate methods shall be used in conjunction with the test methods and procedures specified in Methods 18, 25, or 25A of 40 CFR Part 60, Appendix A for determining VOC mass emissions; and
vi. for HAPs (specifically pollutants acetaldehyde, acrolein, formaldehyde, formic acid, hexane and methanol), Methods 18 or 320 from 40 CFR Part 60, Appendix A.

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

d. The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in Methods 18, 25, or 25A of 40 CFR Part 60, Appendix A for VOC emissions . The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases."

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

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

Personnel from the Ohio EPA, NWDO shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to

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

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

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

a. Emission Limitation
Combined CO emissions from B001, B002, P005, P007, P008, P009, P011 (except emissions vented to the flare) and P902 (except emissions vented to Stack S70) shall not exceed 20.70 lbs CO/hr and 90.29 tons CO/year.

Applicable Compliance Method
Compliance with the hourly allowable emission limitation shall be demonstrated through performance testing as described in Section E.1 above.

The annual emission limitation was developed by multiplying the maximum annual throughput of 392,568 tons DDGS/year (the maximum annual throughput for emissions unit P902) by a company-supplied emission factor of 0.46 lb CO/ton DDGS and multiplying by 0.0005 ton/lb. Therefore, if compliance is shown with the maximum annual throughput for DDGS and the CO emission factor is verified through testing, compliance with the annual limitation shall be assumed.

b. Emissions Limitation
Combined NO_X emissions from B001, B002, P005, P007, P008, P009, P011 (except emissions vented to the flare) and P902 (except emissions vented to Stack S70) shall not exceed 21.20 lbs NO_X/hr and 92.86 tons NO_X/year.

Applicable Compliance Method
Compliance with the hourly allowable emission limitation above shall be demonstrated through the data recorded by the continuous emissions monitor. Compliance with the hourly allowable emission limitation shall also be based on the results of emission testing conducted in accordance with performance testing as described in Sections E.1 and E.2 above.

The annual emission limitation was developed by multiplying the hourly emission limitation by a maximum operating schedule of 8760 hours/year and dividing by

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2,000 pounds/ton. Therefore, if compliance is shown with the hourly limitation, compliance with the annual limitation shall be assumed.

c. Emissions Limitation
Combined SO_2 emissions from B001, B002, P005, P007, P008, P009, P011 (except emissions vented to the flare) and P902 (except emissions vented to Stack S70) shall not exceed 20.52 lbs SO_2/hr and 89.51 tons SO_2/year.

Applicable Compliance Method
Compliance with the hourly allowable emission limitation shall be demonstrated through performance testing as described in Section E.1 above.

The annual emission limitation was developed by multiplying the maximum annual throughput of 392,568 tons DDGS/year (the maximum annual throughput for emissions unit P902) by a company-supplied emission factor of 0.456 lb SO2/ton DDGS and multiplying by 0.0005 ton/lb. Therefore, if compliance is shown with the maximum annual throughput for DDGS and the SO2 emission factor is verified through testing, compliance with the annual limitation shall be assumed.

d. Emissions Limitation
Combined PM_{10} emissions from B001, B002, P005, P007, P008, P009, P011 (except emissions vented to the flare) and P902 (except emissions vented to Stack S70) shall not exceed 4.50 lbs PM10/hr and 19.63 tons PM10/year.

Applicable Compliance Method
Compliance with the hourly allowable emission limitation shall be demonstrated through performance testing as described in Section E.1 above.

The annual emission limitation was developed by multiplying the maximum annual throughput of 392,568 tons DDGS/year (the maximum annual throughput for emissions unit P902) by a company-supplied emission factor of 0.10 lb PM10/ton DDGS and multiplying by 0.0005 ton/lb. Therefore, if compliance is shown with the maximum annual throughput for DDGS and the PM10 emission factor is verified through testing, compliance with the annual limitation shall be assumed.

e. Emissions Limitation
Combined VOC emissions from B001, B002, P005, P007, P008, P009, P011 (except emissions vented to the flare) and P902 (except emissions vented to Stack S70) shall not exceed 5.40 lbs VOC/hr and 23.55 tons VOC/year.

Applicable Compliance Method

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Compliance with the hourly allowable emission limitation shall be demonstrated through performance testing as described in Section E.1 above.

The annual emission limitation was developed by multiplying the maximum annual throughput of 392,568 tons DDGS/year (the maximum annual throughput for emissions unit P902) by a company-supplied emission factor of 0.12 lb VOC/ton DDGS and multiplying by 0.0005 ton/lb. Therefore, if compliance is shown with the maximum annual throughput for DDGS and the VOC emission factor is verified through testing, compliance with the annual limitation shall be assumed.

f. Emissions Limitation
Visible PE from the stack serving this emissions unit shall not exceed 5% opacity, as a six-minute average.

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Applicable Compliance Method
If required, compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

g. Emissions Limitation
The recuperative thermal oxidizer shall meet a minimum destruction efficiency of 95% of VOC emissions.

Applicable Compliance Method
Compliance with the control efficiency requirements above shall be demonstrated based on the results of emission testing conducted in accordance with the methods outlined in Section E.1 of this permit.

h. Emissions Limitation
The recuperative thermal oxidizer shall meet a minimum destruction efficiency of 95% of CO emissions.

Applicable Compliance Method
Compliance with the CO destruction efficiency shall be assumed as long as compliance with the hourly CO mass emission limitation is maintained. [Due to the creation of CO in the RTO, it is not possible to perform testing to demonstrate compliance directly associated with the destruction of CO entering the RTO.]

i. Emissions Limitation
The thermal oxidizer control system shall meet a minimum control efficiency of 95% of PM10 emissions including the use of a multiclone for the removal of particulate matter prior to entering the thermal oxidizers. The control system shall result in a mass emission rate of 4.50 lbs PM10 /hour from the thermal oxidizers;

Applicable Compliance Method
Compliance with the PM10 control efficiency shall be assumed as long as compliance with the hourly PM10 mass emission limitation is maintained.

j. Emissions Limitation
0.61 ton CO/year from flare

Applicable Compliance Method
The annual limitation represents the potential to emit for this emissions unit. The PTE for CO for this emissions unit was calculated by multiplying the following:

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E = [(an emission factor of 0.37 lbs CO/mmBtu [as determined through the methodology in AP-42, Section 13.5-1 (9/91)]) x (6.4 mmBtu/hr) x (year/500 hours) x (ton/2000 lbs)] + [(an emission factor of 40 lbs CO/mmscf [as determined through the methodology in AP-42, Section 1.4-1 (7/98)]) x (0.1 mmBtu/hr) x (scf/1020 Btu) x (year/8760 hours) x (ton/2000 lbs)]

k. Emissions Limitation
0.15 ton NO_X/year from flare

Applicable Compliance Method
The annual limitation represents the potential to emit for this emissions unit. The PTE for NO_X for this emissions unit was calculated by multiplying the following:

E = [(an emission factor of 0.068 lbs NO_X/mmBtu [as determined through the methodology in AP-42, Section 13.5-1 (9/91)]) x (6.4 mmBtu/hr) x (year/500 hours) x (ton/2000 lbs)] + [(an emission factor of 94 lbs NO_X/mmscf [as determined through the methodology in AP-42, Section 1.4-1 (7/98)]) x (0.1 mmBtu/hr) x (scf/1020 Btu) x (year/8760 hours) x (ton/2000 lbs)]

l. Emissions Limitation
0.08 ton VOC/year from flare

Applicable Compliance Method
The annual limitation represents the potential to emit for this emissions unit. The PTE for VOC for this emissions unit was calculated by multiplying the following:

E = [(an emission factor of 0.052 lbs VOC/mmBtu [as determined through the methodology in AP-42, Section 13.5-1 (9/91)]) x (6.4 mmBtu/hr) x (year/500 hours) x (ton/2000 lbs)] + [(an emission factor of 5.5 lbs VOC/mmscf [as determined through the methodology in AP-42, Section 1.4-1 (7/98)]) x (0.1 mmBtu/hr) x (scf/1020 Btu) x (year/8760 hours) x (ton/2000 lbs)]

F. Miscellaneous Requirements

None

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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 -(P012) - Emergency Fire Water Pump Powered by 300 hp Diesel-Fired Engine

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
ORC 3704.03(T)(4)	See A.2.a.
OAC rule 3745-31-05(C)	NOx emissions shall not exceed 0.09 ton per rolling, 12-month period. See A.2.b and B.2.
OAC rule 3745-17-07(A)	Visible particulate emissions (PE) shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
OAC rule 3745-17-11(B)(5)(a)	PE shall not exceed 0.310 lb/mmBtu actual heat input. See A.2.e.
OAC rule 3745-21-08(B)	See A.2.c.
40 CFR Part 60 Subpart IIII	See A.2.d.

2. Additional Terms and Conditions

2.a The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the NOx emissions from this air contaminant source since the calculated annual emission rate for NOx is less than ten tons per year taking into account the federally enforceable restriction on the hours of operation under OAC rule 3745-31-05(C). BAT requirements also do not apply to particulate emissions (PE), particulate matter equal to or less than 10 microns in size (PM10), carbon monoxide (CO), volatile organic compounds (VOC) and sulfur dioxide (SO2) emissions from this emissions unit since potential emissions of PE, PM10, CO, VOC and SO2 emissions are each less than ten tons per year.

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The annual emission rate for this emissions unit is 0.01ton/year of SO2; determined by multiplying the manufacturer's specified emission factor of 0.0013 pounds per horsepower-hour (lb/Hp-hr) by the maximum power output of 300 Hp, the maximum operating schedule of 52 hours per year and 2000 lbs/ton.

The annual emission rate for this emissions unit is 0.002 ton/year of PM10; determined by multiplying the manufacturer's specified emission factor of 0.0002 lbs/Hp-hr by the maximum power output of 300 Hp, the maximum operating schedule of 52 hours per year and 2000 lbs/ton. All PE is assumed to be PM10.

The annual emission rate for this emissions unit is 0.002 ton/year of VOC; determined by multiplying the manufacturer's specified emission factor of 0.0003 lbs/Hp-hr by the maximum power output of 300 Hp, the maximum operating schedule of 52 hours per year and 2000 lbs/ton.

The annual emission rate for this emissions unit is 0.005 ton/year of CO; determined by multiplying the manufacturer's specified emission factor of 0.0006 lbs/Hp-hr by the maximum power output of 300 Hp, the maximum operating schedule of 52 hours per year and 2000 lbs/ton.

2.b This permit establishes a 0.09 ton NO_X per rolling, 12-month period federally enforceable emission limitation based on an hours of operation restriction (See B.2) and the hourly potential emissions of 3.45 lbs NOx. The federally enforceable emission limitation is being established for purposes of avoiding PSD applicability.

2.c The design of the emissions unit and the technology associated with the current operating practices satisfy the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B).

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. On June 24, 2003, the rule revision was submitted to U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision 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.d This emissions unit is subject to 40 CFR Part 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion. The permittee shall comply with all applicable requirements of 40 CFR Part 60, Subpart IIII. The permittee shall also comply with all applicable requirements of 40 CFR Part 60, Subpart A. (General Provisions) as identified in Table 8 of 40 CFR Part 60, Subpart IIII.

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2.e The potential to emit for PE from this emissions unit (see A.2.a) is less that the allowable emission limitation established pursuant to this rule.

B. Operational Restrictions

1. The permittee shall combust only diesel fuel that meets the per gallon standards of 40 CFR 80.510.

2. The maximum annual hours of operation for this emissions unit shall not exceed 52 hours per year, 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 the levels specified in the following table:

Month(s)	Maximum Allowable Hours of Operation
1	4
1-2	8
1-3	12
1-4	16
1-5	20
1-6	24
1-12	52

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

C. Monitoring and/or Recordkeeping Requirements

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

   a. the hours of operation;

   b. the calculated monthly emission rate for NOx using the following equation: NOx emissions (in tons) = (hours of operation) x (potential hourly NOx emissions) x (1 ton/2000 lbs) = (C.1.a) x (3.45 lbs NOx) x (1/2000 lbs);

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c. for the first 12 months of operation following the issuance of this permit, the cumulative year-to-date total hours of operation; and

d. beginning the first month, after the first 12 months of operation following the issuance of this permit, the following summations:

i. the rolling, 12-month NOx emission rate, in tons; and
ii. the rolling, 12-month hours of operation.

2. For each day during which the permittee burns a fuel other than diesel fuel as specified in B.1, the permittee shall maintain a record of the type, quantity and documentation of the sulfur content of fuel burned in this emissions unit.

3. The permittee shall use records of fuel supplier certification to demonstrate compliance with the operational restriction in section B.1. Records of fuel supplier certification shall include the following information:

a. the name of the oil supplier; and

b. a statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in B.1 above.

D. Reporting Requirements

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

a. All exceedances of the rolling, 12-month restriction of 52 hours.

b. All exceedances of the rolling, 12-month NOx emission limitation of 0.09 ton.

c. For the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative hours of operation specified in section B.2.

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

2. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than diesel fuel as specified in B.1 was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

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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. Emissions Limitations:
   0.09 ton NOx per rolling, 12-month period.

   Applicable Compliance Method:
   Compliance with the ton per rolling, 12-month period emission limitations above shall be demonstrated by the record keeping requirements established in section C.1 of this permit.

   b. Emissions Limitations:
   PE shall not exceed 0.310 lb/mmBtu actual heat input.

   Applicable Compliance Method:
   The potential to emit for particulate emissions from this emissions unit is less that the allowable emission limitation established pursuant to this rule. The potential to emit is based on the engine manufacturer's specified emission factor of 0.0002 lb PM10/Hp-hr (All PE is PM10) and a brake-specific fuel consumption of 7,000 Btu/Hp-hr to convert from lb/Hp-hr to lb/mmBtu resulting in potential PM10 emissions of 0.0286 lb/mmBtu.

   If required, the permittee shall demonstrate compliance with this emission limitation in accordance with Methods 1-5 of 40 CFR Part 60, Appendix A.

   c. Emissions Limitation
   Visible PE from the stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average.

   Applicable Compliance Method:
   Compliance shall be demonstrated in accordance with OAC rule 3745-17-03(B)(1).

F. Miscellaneous Requirements

1. The following terms and conditions are federally enforceable: A.1, B.2, C.1, D.1, E.1.a, and E.1.b.

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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 -(P801) - Fugitive VOC Emissions (Leaks)

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
ORC 3704.03(T)(4)	See A.2.f.
OAC rule 3745-21-09(DD)	See 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)]

i. 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.

ii. 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)]

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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 equally-effective 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 Record keeping, reporting, and testing) of OAC rule 3745-21-09(DD) (Leaks from Process Units that Produce Organic Chemicals) and 40 CFR Part 60, Subpart 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 BAT requirements under OAC rule 3745-31-05(A)(3) do not apply to the volatile organic compound (VOC) emissions from this air contaminant source since the calculated annual emission rate for VOC is less than ten tons per year taking into account the federally enforceable requirements of OAC rule 3745-21-09(DD) and 40 CFR Part 60, Subpart VV.

The annual emission rate for this emissions unit is 8.85 tons per year of VOC; determined by annual production of 127,050,000 gallons denatured ethanol, component counts, and emission factors from 'Protocol for Equipment Leak Emission Estimates', EPA-453/R-95-017, Table 5-2.

B. Operational Restrictions

1. [60.482-2(a)] Pumps in light liquid service.
   a. 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.

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

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

3. [60.482-2(c)]

a. 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.

b. 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:

a. 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.

b. The barrier fluid system is in heavy liquid service or is not in VOC service.

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

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

e. 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.

f. 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

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both based on the criterion determined in paragraph (d)(5)(ii), a leak is detected.

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

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

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:

a. Has no externally actuated shaft penetrating the pump housing,

b. 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

c. 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:

a. 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

b. 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

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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:

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

    b. 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

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

    b. 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)]

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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)]
    a. 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.

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

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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:

    a. 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

    b. 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)]
    a. 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.

    b. 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).

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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)]
    a. 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.

    b. 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:

    a. Return the purged process fluid directly to the process line; or

    b. Collect and recycle the purged process fluid to a process; or

    c. 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

    d. 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

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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.

a. 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).

b. 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 over pressure, 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.

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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)]
    a. 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.

    b. 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)]
    a. 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.

    b. 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:

    a. Tightening of bonnet bolts;

    b. Replacement of bonnet bolts;

    c. Tightening of packing gland nuts;

    d. 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:

    a. Has no external actuating mechanism in contact with the process fluid,

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

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

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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:

    a. 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

    b. 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:

    a. 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.

    b. 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

    c. 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:

    a. 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.

    b. 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.

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41. [60.482-8(c)]
    a. 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.

    b. 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:

    a. 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

    b. 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:

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

    b. 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

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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 (l) 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.

    a. 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)(l) 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.

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b. 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.

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

b. 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 (I)(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:

a. 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

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b. 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:

a. 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

b. 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

c. 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.

a. 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.

b. 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.

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

d. 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.

e. 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

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performed, the date of the inspection, and a statement that no leaks were detected.

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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:

    a. 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).

    b. 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.

    c. 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:

    a. 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).

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

    c. 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.
    a. 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.

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b. 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)]
   a. 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.

   b. 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.
   c. 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.

   d. 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.

   e. 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.

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

C. Monitoring and/or Record keeping Requirements

1. [60.486] Record keeping requirements.
   a. Each owner or operator subject to the provisions of this subpart shall comply with the Record keeping requirements of this section.
   b. An owner or operator of more than one affected facility subject to the provisions of this subpart may comply with the Record keeping requirements for these facilities in one Record keeping 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:

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

b. 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.

c. 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:

a. The instrument and operator identification numbers and the equipment identification number.

b. The date the leak was detected and the dates of each attempt to repair the leak.

c. Repair methods applied in each attempt to repair the leak.

d. "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.

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

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

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

h. Dates of process unit shutdowns that occur while the equipment is unrepaired.

i. 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:

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a. Detailed schematics, design specifications, and piping and instrumentation diagrams.

b. The dates and descriptions of any changes in the design specifications.

c. 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.

d. 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.

e. 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:

a. A list of identification numbers for equipment subject to the requirements of this subpart.

b. 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.

c. A list of equipment identification numbers for pressure relief devices required to comply with 60.482-4.

d. 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.

e. A list of identification numbers for equipment in vacuum service.

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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:

   a. 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.

   b. 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:

   a. A schedule of monitoring.

   b. 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:

   a. Design criterion required in 60.482-2(d)(5) and 60.482-3(e)(2) and explanation of the design criterion; and

   b. Any changes to this criterion and the reasons for the changes.

9. [60.486(l)]
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):

   a. An analysis demonstrating the design capacity of the affected facility,

   b. 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

   c. An analysis demonstrating that equipment is not in VOC service.

10. [60.486(j)]

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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:

   a. Process unit identification.

   b. 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).

   c. 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).

   d. 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:

   a. Process unit identification.

   b. 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,

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ii. Number of valves for which leaks were not repaired as required in 60.482-7(d)a.,

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)a. 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)a., and

(vii) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible.

c. Dates of process unit shutdowns which occurred within the semiannual reporting period.

d. 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.

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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).

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2. [60.485(b)]
The owner or operator shall determine compliance with the standards in 60.482, 60.483, and 60.484 as follows:

   a. 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(l), 60.482-4, 60.482-7(f), and 60.482-10(e) as follows:

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

   b. 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:

   a. 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.

   b. 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.

   c. 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)a. and (2) of this section shall be used to resolve the disagreement.

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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:

a. 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.

b. 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.

c. 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:

a. Method 22 shall be used to determine visible emissions.

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

c. The maximum permitted velocity for air assisted flares shall be computed using the following equation:

$$V_{max} = K_1 + K_2 H_T$$

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)

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

$$H_T = K\sum_{I=1}^{N} CiHi$$

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

e. Method 18 and ASTM D2504-67, 77, or 88 (Re-approved 1993) (incorporated by reference -- see 60.17) shall be used to determine the concentration of sample component "I."

f. 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.

g. 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.

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:

a. 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.

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

c. 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:

a. 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.

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

c. 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.

d. 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.

e. 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)]

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a. 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.

b. 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.

c. 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)a. of the Clean Air Act.

6. [60.484(f)]
   a. 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.

   b. 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

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operational restrictions, monitoring and Record keeping, reporting, and testing) of OAC rule 3745-21-09(DD) and 40 CFR Part 60, Subpart VV.

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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 -(P802) - Wet Cake Handling and Storage

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(C)	Volatile organic compound (VOC) emissions shall not exceed 3.62 tons/yr See A.2.a and A.2.b.

2. Additional Terms and Conditions

2.a The permit to install for this air contaminant source takes into account the an annual throughput restriction of 872,373 tons of wet cake, as a voluntary restriction as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3).

The permittee has also agreed to a voluntary restriction to contain wet cake handling and storage in a four sided enclosure.

2.b VOC emissions from wet cake handling and storage do not represent a "worst-case" emissions scenario and are not accounted for in the facility potential to emit calculations. The "worst-case" emissions scenario is when wet cake is dried in emissions units P008 and P009.

B. Operational Restrictions

1. The maximum annual wetcake throughput for this emissions unit shall not exceed 872,373 tons of wetcake.

2. All wetcake must be removed from the wetcake storage area within 48 hours of production/placement to storage. If material is removed from storage area it may be either recycled back into the system or removed off of the property.

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C. Monitoring and/or Recordkeeping Requirements

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

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

   a. a daily record of the time and quantity of wetcake that is added to the wetcake storage enclosure each day as a result of production.

   b. a daily record of the time and quantity of wetcake that is added to the wetcake storage enclosure each day from any source other than production.

   c. a weekly record of the total amount of wetcake produced, in pounds, along with the total throughput of corn used for the facility.

   d. a daily record showing the time and quantity for each loadout of wetcake which is removed from the wetcake storage area, and the reason for removal (shipment, recycle, or waste).

   This data is to be kept in a log book located within 50 yards of the storage facility for easy review.

D. Reporting Requirements

1. The permittee shall submit reports that summarize the total annual amount of wetcake throughput for this emissions unit. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

2. The permittee shall submit semi-annual reports that (a) identify all days during which wetcake was added to the storage enclosure as a result of production (b) identify all days during which wetcake was added to the storage enclosure from any source other than production and (c) describe any corrective actions that resulted in wetcake being removed as a waste. These reports shall be submitted to the Ohio EPA, NWDO 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. <u>Emission Limitation:</u>
   VOC emissions shall not exceed 3.62 tons/yr

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Applicable Compliance Method:
The emission limitation was established by multiplying a manufacturer-supplied emission factor of 0.0083 lb VOC/ton wetcake by the maximum annual wetcake throughput of 872,373 tons and dividing by 2000 lbs per ton. Therefore, provided compliance is shown with the maximum annual wetcake throughput, compliance with the annual limitation shall be assumed.

F. Miscellaneous Requirements

None

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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 -(P901) - Grain Receiving, Transferring, Conveying and Storage controlled with Baghouse

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(C)	Particulate matter 10 microns or less in diameter (PM10) from the baghouse stack serving this emissions unit shall not exceed 0.005 grain per dry standard cubic foot (gr/dscf) and 9.02 tons/year. Visible particulate emissions (PE) from the baghouse stack serving this emissions unit shall not exceed 0% opacity, as a six-minute average. Fugitive PE shall not exceed 3.18 tons/year. Fugitive PM_{10} emissions shall not exceed 1.06 tons/year. Visible PE of fugitive dust from grain handling operations shall not exceed 0% opacity. Visible PE of fugitive dust from truck and railcar unloading shall not exceed 5% opacity See A.2.a. and A.2.d.
OAC rule 3745-17-07(A)(1) and 40 CFR 60 Subpart DD OAC rule 3745-17-11(B)(1)	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(C).
OAC rule 3745-17-07(B)	See A.2.b.
OAC rule 3745-17-08(B)	See A.2.c.

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2. Additional Terms and Conditions

2.a Permit to Install 03-17234 for this air contaminant source takes into account the following voluntary restrictions as proposed by the permittee for purposes of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3):

i. for grain receiving, partial enclosure with aspiration to baghouse (S20) achieving a maximum outlet concentration of 0.005 gr PM10/dscf; and

ii. for transferring/conveying, the use total enclosure and use of baghouse (S20).

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

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

2.d All particulate matter emitted from the baghouse is PM10.

B. Operational Restrictions

1. The permittee shall not exceed an annual material throughput rate of 1,210,000 tons of grain received.

C. Monitoring and/or Record keeping 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.

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

   a. the color of the emissions;

   b. whether the emissions are representative of normal operations;

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

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

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

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

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, NWDO by January 31 and July 31 of each year and shall cover the previous 6-month period.

2. The permittee shall submit annual records that summarize the total annual material throughput for this emissions unit, in tons of grain. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

E. Testing Requirements

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

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

b. The emission testing shall be conducted to:

   i. demonstrate compliance with the baghouse grain loading of 0.005 gr PM10/dscf.

   ii. determine the maximum volumetric air flow for the baghouse

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

   i. for PM10, 40 CFR Part 51, Appendix M, Methods 201 and 202 and 40 CFR Part 60, Appendix A;

   ii. for volumetric air flow, Methods 1-4 of 40 CFR Part 60, Appendix A.

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

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

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

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

   A comprehensive written report of the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, NWDO within 30 days following completion of the test(s). The

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permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, NWDO.

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

a. Emission Limitations:
0.005 gr PM10/dscf and 9.02 tons/year PM10.

Applicable Compliance Method:
Compliance with the grain loading of 0.005 gr/dscf shall be demonstrated based on the results of emission testing conducted in accordance with Methods 201 and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA, NWDO.

Compliance with the annual allowable PM10 emission limitation shall be demonstrated based on the baghouse outlet grain loading and the maximum volumetric flow rate as follows:

PM10 (tons/yr) = baghouse grain loading (0.005 gr/dscf) x 1 lb/7000 gr x maximum volumetric flow rate of the baghouse (48,000 cfm) x 60 min/hour x 8760 hours/yr x ton/2000lbs

Therefore, as long as compliance with the 0.005 gr/dscf is maintained and the volumetric air flow rate is verified through testing, compliance with the annual PM10 limitation shall be ensured.

Therefore, as long as compliance with the 0.005 gr/dscf is maintained and the volumetric air flow rate is verified through testing, compliance with the annual PM10 limitation shall be ensured.

b. Emission Limitation:
Fugitive PE shall not exceed 3.18 tons/yr

Applicable Compliance Method:
Compliance with the annual emission limitations above may be demonstrated by the following calculations using emission factors from AP-42 (Section 9.9.1, March 2003), US EPA's WebFire Database and the maximum grain throughput.

= [1,210,000 ton/yr x 0.093 lb PE/ton x ton/2000 lbs x 0.05 (95% capture efficiency)] + [1,210,000 ton/yr x 0.061 lb PE/ton x ton/2000 lbs x 0.01 (99% capture efficiency)] = 3.18 tons PE/year

c. Emission Limitation:

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Fugitive PM10 shall not exceed 1.06 tons/yr.

Applicable Compliance Method:
Compliance with the annual emission limitations above may be demonstrated by the following calculations using emission factors from AP-42 (Section 9.9.1, March 2003), US EPA's WebFire Database and the maximum grain throughput.

= [1,210,000 ton/yr x 0.028 lb PM10/ton x ton/2000 lbs x 0.05 (95% capture efficiency)] + [1,210,000 ton/yr x 0.034 lb PM10/ton x ton/2000 lbs x 0.01 (99% capture efficiency)] = 1.06 tons PM10/year

d. Emission Limitation:
Visible PE from the baghouse stack shall not exceed 0% opacity, as a six-minute average.

Applicable Compliance Method:
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."

d. Emission Limitation:
Visible fugitive PE shall not exceed 5% opacity from any truck or rail unloading.

Applicable Compliance Method:
Compliance with the visible emission limitation shall be determined in accordance with Test Method 9 as set forth in “Appendix on Test Methods” in 40 CFR, Part 60 (“Standards of Performance for New Stationary Sources”), as such Appendix existed on July 1, 2002, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

e. Emission Limitation:
Visible fugitive PE shall not exceed 0% opacity from any grain handling operations.

Applicable Compliance Method:
Compliance with the visible emission limitation shall be determined in accordance with Test Method 9 as set forth in “Appendix on Test Methods” in 40 CFR, Part 60 (“Standards of Performance for New Stationary Sources”), as such Appendix existed on July 1, 2002, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

F. Miscellaneous Requirements

None

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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 - (P902) - DDGS Handling and Cooling Controlled by a Baghouse and Recuperative Thermal Oxidizer

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	Combined process and combustion emissions from B001, B002, P005, P007, P008, P009, P011 (except emissions vented to the flare) and P902 (except emissions vented to Stack S70) after control shall not exceed: 20.70 lbs/hr of carbon monoxide (CO), 90.29 tons CO/year; 21.20 lbs/hr of nitrogen oxides (NO_X), 92.86 tons NO_X/year; 20.52 lbs/hr of sulfur dioxide (SO_2), 89.51 SO_2/year; 5.40 lbs/hr of volatile organic compounds (VOC), 23.55 tons VOC/year 4.50 pounds of particulate matter 10 microns or less in diameter (PM10)/hour and 19.63 tons PM10/year. Visible particulate emissions (PE) from the stack serving this emissions unit shall not exceed 5% opacity, as a six-minute average. Emissions exhausted through Stack S70 after control shall not exceed: 2.25 lbs VOC/hour, 9.81 tons VOC/year PM10 from the baghouse stack serving this emissions unit shall

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	not exceed a maximum outlet concentration of 0.005 gr/dscf and 3.24 tons/year. Visible PE from the baghouse stack serving this emissions unit shall not exceed 0% opacity, as a 6-minute average. <u>Fugitive Emissions</u>: Fugitive PE shall not exceed 0.79 ton/year. Fugitive PM10 emissions shall not exceed 0.36 ton/year. Visible fugitive PE shall not exceed 5% opacity, as a 3-minute average, from DDGS handling. The requirements of this rule also include compliance with the rules 3745-21-08(B), 3745-21-09(DD) and 40 CFR Part 60, Subpart VV. requirements of OAC rules 3745-21-08(B), 3745-21-09(DD) and 40 CFR Part 60, Subpart VV.
	requirements of OAC rules 3745-21-08(B), 3745-21-09(DD) and 40 CFR Part 60, Subpart VV.
OAC rule 3745-17-11(B)(1) OAC rule 3745-17-07(A)(1) OAC rule 3745-18-06(E)	The emission limitations specified by these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
OAC rule 3745-17-07(B)	See A.2.a.
OAC rule 3745-17-08(B)	See A.2.b.
OAC rule 3745-21-08(B)	See A.2.d.
OAC rule 3745-114-01 ORC 3704.03(F)	See section A.III.4.

2. Additional Terms and Conditions

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

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

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2.c The design of the emissions unit and the technology associated with the current operating practices satisfy the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B).

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. On June 24, 2003, the rule revision was submitted to U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision 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.d Best available technology (BAT) control requirements for this emissions unit has been determined to be the following:

i. venting of emissions to a thermal oxidizer control system which meets the following:

a. 95% destruction efficiency for VOC;

b. 90% destruction efficiency for CO;

c. 95% control efficiency for PM10 including the use of a multiclone for the removal of particulate matter prior to entering the thermal oxidizers. The control system shall result in a mass emission rate of 4.50 lbs PM10 /hour from the thermal oxidizers;

and

ii. maintain enclosures and vent emissions to a baghouse with a maximum outlet concentration of 0.005 gr PM10/dscf.

2.f All particulate matter emitted from the baghouse stack is PM10.

B. Operational Restrictions

None

C. Monitoring and/or Record keeping Requirements

1. The permittee shall properly install, operate, and maintain equipment to continuously monitor and record the combustion temperature, in degrees Fahrenheit, within the thermal oxidizer during operation of this emissions unit, including periods of startup and shutdown. The monitoring equipment shall be installed, calibrated, operated, and

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maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

Whenever the monitored value for the combustion temperature deviates from the value specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment to the acceptable value specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the combustion temperature reading immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The acceptable value for the average combustion temperature within the thermal oxidizer, for all 3-hour blocks of time, when the emissions unit was in operation, shall not be more than 50 degrees Fahrenheit below the average temperature maintained during the most recent emissions test that demonstrated the emissions unit to be in compliance or the minimum average combustion temperature within the thermal oxidizer recommended by the thermal oxidizer manufacturer until such testing is completed.

This value is effective for the duration of this permit. In addition, approved revisions to the value will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

2. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop, in inches of water, across the baghouse during operation of this emissions unit, including periods of startup and shutdown. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop, in inches of water, across the baghouse on a daily basis.

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Whenever the monitored value for the pressure drop deviates from the range specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the pressure drop readings immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The acceptable range for the pressure drop across the baghouse shall be established during the most recent emissions test that demonstrated the emissions unit to be in compliance or the baghouse pressure drop range shall be 0.25 to 8 inches of water until such testing is completed.

This range is effective for the duration of this permit. In addition, approved revisions to the range will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

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

   a. the location and color of the emissions;

   b. whether the emissions are representative of normal operations;

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

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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 was evaluated based on the actual materials and the design parameters of each emissions unit's exhaust system, as specified by the permittee in the permit to install application. Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by these emissions units using data from the permit to install application and an ISCST3 model (or other Ohio EPA approved model). The maximum ambient impact from the use of the ISCST3 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 (mg/m^3): 176.24
Maximum Hourly Emission Rate (lbs/hr): 0.76
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 5.14 (entire facility)
MAGLC (ug/m^3): 4,196

Pollutant: Acetaldehyde
TLV (mg/m^3): 33.20
Maximum Hourly Emission Rate (lbs/hr): 1.96
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 92.60 (entire facility)
MAGLC (ug/m^3): 790

Pollutant: Formaldehyde
TLV (mg/m^3): 0.272
Maximum Hourly Emission Rate (lbs/hr): 0.45
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 3.20 (entire facility)
MAGLC (ug/m^3): 6.47

Pollutant: Formic Acid
TLV (mg/m^3): 9.411
Maximum Hourly Emission Rate (lbs/hr): 0.31
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 19.27 (entire facility)
MAGLC (ug/m^3): 224.07

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

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the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

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

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

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

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of air toxic 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) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

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

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

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

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

D. Reporting Requirements

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1. The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:

   a. each period of time when the combustion temperature within the thermal oxidizer was not equal to the acceptable value;

   b. an identification of each incident of deviation described in (a) where a prompt investigation was not conducted;

   c. an identification of each incident of deviation described in (a) where prompt corrective action, that would bring the combustion temperature into compliance with the acceptable value, was determined to be necessary and was not taken; and

   d. an identification of each incident of deviation described in (a) where proper records were not maintained for the investigation and/or the corrective action.

   These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

2. The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:

   a. each period of time when the pressure drop across the baghouse was outside of the acceptable range;

   b. an identification of each incident of deviation described in (a) where a prompt investigation was not conducted;

   c. an identification of each incident of deviation described in (a) where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and

   d. an identification of each incident of deviation described in (a) where proper records were not maintained for the investigation and/or the corrective action.

   These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

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3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points serving this emissions unit (b) 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, NWDO by January 31 and July 31 of each year and shall cover the previous 6-month period.

E. Testing Requirements

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

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

   b. The emission testing shall be conducted to:

      i. demonstrate compliance with the following for the thermal oxidizer serving this emissions unit:

         (a) the allowable combined emission limitation for CO of 20.70 lbs/hr;

         (b) the allowable combined emission limitation for NO_X of 21.20 lbs/hr;

         (c) the allowable combined emission limitation for SO_2 of 20.52 lbs/hr;

         (d) the allowable combined emission limitation for PM_{10} of 4.50 lbs/hr;

         (e) the allowable combined emission limitation for VOC of 5.40 lbs/hr;

         (f) the control efficiency (95% for VOC) of the thermal oxidizer; and

         (g) verify the expected emissions for single and combined HAPs.

      ii. demonstrate compliance with the following for the baghouse serving this emissions unit:

         (a) 0.005 gr PM10/dscf;

         (b) the allowable emission rate of 2.25 lb VOC/hr;

         (c) determine the maximum volumetric air flow for the baghouse; and

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(d) verify the expected emissions for single and combined HAPs.

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

i. for $PM_{10,}$ Methods 201 and 202 of 40 CFR Part 51, Appendix M for condensibles;
ii. for NOx, Methods 1-4 and 7 of 40 CFR Part 60, Appendix A;
iii. for CO, Methods 1-4 and 10 of 40 CFR Part 60, Appendix A;
iv. for SO_2, Methods 1-4 and 6c of 40 CFR Part 60, Appendix A;
v. for VOC Methods 1-4 and 18, 25 or 25A of 40 CFR Part 60, Appendix A. Appropriate methods shall be used in conjunction with the test methods and procedures specified in Methods 18, 25, or 25A of 40 CFR Part 60, Appendix A for determining VOC mass emissions; and
vi. for HAPs (specifically pollutants acetaldehyde, acrolein, formaldehyde, formic acid, hexane and methanol), Methods 18 or 320 from 40 CFR Part 60, Appendix A.
vii. for volumetric air flow, Methods 1-4 of 40 CFR Part 60, Appendix A.

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

d. The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in Methods 18, 25, or 25A of 40 CFR Part 60, Appendix A for VOC emissions . The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases."

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

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

Personnel from the Ohio EPA, NWDO shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to

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

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

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

a. Emission Limitation
Combined CO emissions from B001, B002, P005, P007, P008, P009, P011 (except emissions vented to the flare) and P902 (except emissions vented to Stack S70) shall not exceed 20.70 lbs CO/hr and 90.29 tons CO/year.

Applicable Compliance Method
Compliance with the hourly allowable emission limitation shall be demonstrated through performance testing as described in Section E.1 above.

The annual emission limitation was developed by multiplying the maximum annual throughput of 392,568 tons DDGS/year by a company-supplied emission factor of 0.46 lb CO/ton DDGS and multiplying by 0.0005 ton/lb. Therefore, if compliance is shown with the maximum annual throughput for DDGS and the CO emission factor is verified through testing, compliance with the annual limitation shall be assumed.

b. Emissions Limitation
Combined NO_X emissions from B001, B002, P005, P007, P008, P009, P011 (except emissions vented to the flare) and P902 (except emissions vented to Stack S70) shall not exceed 21.20 lbs NO_X/hr and 92.86 tons NO_X/year.

Applicable Compliance Method
Compliance with the hourly allowable emission limitation above shall be demonstrated through the data recorded by the continuous emissions monitor. Compliance with the hourly allowable emission limitation shall also be based on the results of emission testing conducted in accordance with performance testing as described in Sections E.1 and E.2 above.

The annual emission limitation was developed by multiplying the hourly emission limitation by a maximum operating schedule of 8760 hours/year and dividing by

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2,000 pounds/ton. Therefore, if compliance is shown with the hourly limitation, compliance with the annual limitation shall be assumed.

c. Emissions Limitation
Combined SO_2 emissions from B001, B002, P005, P007, P008, P009, P011 (except emissions vented to the flare) and P902 (except emissions vented to Stack S70) shall not exceed 20.52 lbs SO_2/hr and 89.51 tons SO_2/year.

Applicable Compliance Method
Compliance with the hourly allowable emission limitation shall be demonstrated through performance testing as described in Section E.1 above.

The annual emission limitation was developed by multiplying the maximum annual throughput of 392,568 tons DDGS/year by a company-supplied emission factor of 0.456 lb SO2/ton DDGS and multiplying by 0.0005 ton/lb. Therefore, if compliance is shown with the maximum annual throughput for DDGS and the SO2 emission factor is verified through testing, compliance with the annual limitation shall be assumed.

d. Emissions Limitation
Combined PM_{10} emissions from B001, B002, P005, P007, P008, P009, P011 (except emissions vented to the flare) and P902 (except emissions vented to Stack S70) shall not exceed 4.50 lbs PM10/hr and 19.63 tons PM10/year.

Applicable Compliance Method
Compliance with the hourly allowable emission limitation shall be demonstrated through performance testing as described in Section E.1 above.

The annual emission limitation was developed by multiplying the maximum annual throughput of 392,568 tons DDGS/year by a company-supplied emission factor of 0.10 lb PM10/ton DDGS and multiplying by 0.0005 ton/lb. Therefore, if compliance is shown with the maximum annual throughput for DDGS and the PM10 emission factor is verified through testing, compliance with the annual limitation shall be assumed.

e. Emissions Limitation
Combined VOC emissions from B001, B002, P005, P007, P008, P009, P011 (except emissions vented to the flare) and P902 (except emissions vented to Stack S70) shall not exceed 5.40 lbs VOC/hr and 23.55 tons VOC/year.

Applicable Compliance Method
Compliance with the hourly allowable emission limitation shall be demonstrated through performance testing as described in Section E.1 above.

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The annual emission limitation was developed by multiplying the maximum annual throughput of 392,568 tons DDGS/year by a company-supplied emission factor of 0.12 lb VOC/ton DDGS and multiplying by 0.0005 ton/lb. Therefore, if compliance is shown with the maximum annual throughput for DDGS and the VOC emission factor is verified through testing, compliance with the annual limitation shall be assumed.

f. Emissions Limitation
Visible PE from the stack serving this emissions unit shall not exceed 5% opacity, as a six-minute average.

Applicable Compliance Method
If required, compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

g. Emissions Limitation
The recuperative thermal oxidizer shall meet a minimum destruction efficiency of 95% of VOC emissions.

Applicable Compliance Method
Compliance with the control efficiency requirements above shall be demonstrated based on the results of emission testing conducted in accordance with the methods outlined in Section E.1 of this permit.

h. Emissions Limitation
The recuperative thermal oxidizer shall meet a minimum destruction efficiency of 95% of CO emissions.

Applicable Compliance Method
Compliance with the CO destruction efficiency shall be assumed as long as compliance with the hourly CO mass emission limitation is maintained. [Due to the creation of CO in the RTO, it is not possible to perform testing to demonstrate compliance directly associated with the destruction of CO entering the RTO.]

i. Emissions Limitation
The thermal oxidizer control system shall meet a minimum control efficiency of 95% of PM10 emissions including the use of a multiclone for the removal of particulate matter prior to entering the thermal oxidizers. The control system shall result in a mass emission rate of 4.50 lbs PM10 /hour from the thermal oxidizers;

Applicable Compliance Method

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Compliance with the PM10 control efficiency shall be assumed as long as compliance with the hourly PM10 mass emission limitation is maintained.

j. Emissions Limitation
VOC emissions from Stack S70 shall not exceed 2.25 lbs/hour.

Applicable Compliance Method
Compliance with the hourly allowable VOC emission limitation above shall be demonstrated through performance testing as described in Section E.1 above.

k. Emissions Limitation
VOC emissions from Stack S70 shall not exceed 9.81 tons/year.

Applicable Compliance Method
Compliance with the annual emission limitation above may be demonstrated by multiplying a company-supplied emission factor of 0.05 lb VOC/ton DDGS by the maximum DDGS throughput of 392,568 tons and dividing by 2000 lbs/ton.

l. Emission Limitation:
The baghouse (Stack S70) shall achieve an outlet emission rate of not greater than 0.005 grain of PE per dry standard cubic foot of exhaust gases.

Applicable Compliance Method:
Compliance with the grain loading of 0.005 gr/dscf shall be demonstrated based on the results of emission testing conducted in accordance with Methods 201 and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA, NWDO.

m. Emission Limitation:
Visible PE from the baghouse stack shall not exceed 0% opacity, as a 6-minute average.

Applicable Compliance Method:
Compliance shall be determined in accordance with test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

n. Emission Limitation:
Fugitive PE shall not exceed 0.79 ton/year

Applicable Compliance Method:
Compliance with the annual emission limitation above may be demonstrated by the following calculation using the AP-42 emission factor (Section 9.9.1, 5/98) and the maximum DDGS throughput:

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E = 392,568 ton/yr x 0.08 lb PE/ton x ton/2000 lb x 0.05 (95% capture efficiency) = 0.79 tons PE/year

o. Emission Limitation:
Fugitive PM10 shall not exceed 0.36 ton/year.

Applicable Compliance Method:
Compliance with the annual emission limitation above may be demonstrated by the following calculation using the AP-42 emission factor (Section 9.9.1, 5/98) and the maximum DDGS throughput:

= 392,568 ton/yr x 0.037 lb PM10/ton x ton/2000 lb x 0.05 (95% capture efficiency) = 0.36 tons PM10/year

p. Emission Limitation:
Visible fugitive PE shall not exceed 5% opacity, as a 3-minute average, from DDGS handling.

Applicable Compliance Method:
Compliance with the visible emission limitation shall be determined in accordance with Test Method 9 as set forth in “Appendix on Test Methods” in 40 CFR, Part 60 (“Standards of Performance for New Stationary Sources”), as such Appendix existed on July 1, 2002, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

F. Miscellaneous Requirements

None

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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 - (P903) - DDGS Loadout to Truck and Rail Controlled by a Baghouse

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(C)	Particulate matter 10 microns or less in diameter (PM10) from the baghouse stack serving this emissions unit shall not exceed 0.005 grain per dry standard cubic foot (gr/dscf) and 1.71 tons/year. Visible particulate emissions (PE) from the baghouse stack serving this emissions unit shall not exceed 0% opacity, as a six-minute average. Fugitive PE shall not exceed 0.03 ton/year. Fugitive PM10 emissions shall not exceed 0.01 ton/year. Visible fugitive PE shall not exceed 5% opacity, as a 3-minute average, from DDGS loadout. See A.2.a and A.2.d.
OAC rule 3745-17-07(B)	See A.2.b.
OAC rule 3745-17-08(A)	See A.2.c.
OAC rule 3745-17-07(A) and OAC rule 3745-17-11(B)	None (see A.2.e).

2. Additional Terms and Conditions

2.a Permit to Install 03-17234 for this air contaminant source takes into account the use of a baghouse system and a partial enclosure* (with a maximum outlet grain loading of 0.005 gr PM10/dscf for the baghouse) to control PM10 emissions, whenever this air contaminant source is in operation, as a voluntary restriction

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as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3).

*for DDGS rail load out, the use of partial enclosures and a baghouse; and for DDGS truck load out, the use of partial enclosure.

2.b This emissions unit is exempt from the visible particulate emission limitation 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 All particulate matter emitted from the baghouse stack is PM10.

2.e The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 lbs/hr. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply since the facility is located in Crawford County, which is identified as a P-2 county.

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

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

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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, NWDO by January 31 and July 31 of each year and shall cover the previous 6-month period.

E. Testing Requirements

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

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

   b. The emission testing shall be conducted to:

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i. demonstrate compliance with the baghouse grain loading of 0.005 gr PM10/dscf.

ii. determine the maximum volumetric air flow for the baghouse.

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

i. for PM10, 40 CFR Part 51, Appendix M, Methods 201 and 202 and 40 CFR Part 60, Appendix A;

ii. for volumetric air flow, Methods 1-4 of 40 CFR Part 60, Appendix A.

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

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

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

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

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

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

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

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The baghouse shall achieve an outlet emission rate of not greater than 0.005 grain of PE per dry standard cubic foot of exhaust gases.

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Applicable Compliance Method:
Compliance with the grain loading of 0.005 gr/dscf shall be demonstrated based on the results of emission testing conducted in accordance with Methods 201 and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA, NWDO.

b. Emission Limitations:
PM10 from the baghouse stack shall not exceed 1.71 ton/year.

Applicable Compliance Method:
Compliance with the annual allowable PM10 emission limitation shall be demonstrated based on the baghouse outlet grain loading and the maximum volumetric flow rate as follows:

PM10 (tons/yr) = baghouse grain loading (0.005 gr/dscf) x 1 lb/7000 gr x maximum volumetric flow rate of the baghouse (9,100 cfm) x 60 min/hour x 8760 hours/yr x ton/2000lbs

Therefore, as long as compliance with the 0.005 gr/dscf is maintained and the volumetric air flow rate is verified through testing, compliance with the annual PM10 limitation shall be ensured.

c. Emission Limitation:
Visible PE from the baghouse stack shall not exceed 0% opacity, as a 6-minute average.

Applicable Compliance Method:
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."

d. Emission Limitation:
Visible fugitive PE shall not exceed 5% opacity, as a 3-minute average, from DDGS loadout.

Applicable Compliance Method:
Compliance with the visible emission limitation shall be determined in accordance with Test Method 9 as set forth in “Appendix on Test Methods” in 40 CFR, Part 60 (“Standards of Performance for New Stationary Sources”), as such Appendix existed on July 1, 2002, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

e. Emission Limitation:
Fugitive PE shall not exceed 0.03 ton/year

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Applicable Compliance Method:
Compliance with the annual emission limitation above may be demonstrated by the following calculation using the AP-42 emission factor (Section 9.9.1, 5/98) and the maximum grain throughput:

E = 392,568 ton/yr x 0.0033 lb PM/ton x ton/2000 lb x 0.05 (95% capture efficiency) = 0.03 ton PE/year

f. Emission Limitation:
Fugitive PM10 shall not exceed 0.01 ton/year.

Applicable Compliance Method:
Compliance with the annual emission limitation above may be demonstrated by the following calculation using the AP-42 emission factor (Section 9.9.1, 5/98) and the maximum grain throughput:

= 392,568 ton/yr x 0.0008 lb PM10/ton x ton/2000 lb x 0.05 (95% capture efficiency) = 0.01 ton PM10/year

F. Miscellaneous Requirements

None

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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 -(T001) - 200,000 gallon Above Ground Internal Floating Roof Storage Tank (190 Proof Ethanol Tank)

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(C)	Volatile organic compounds (VOC) shall not exceed 0.50 ton/year See A.2.a.
OAC rule 3745-21-09(L)	See A.2.n.
40 CFR, Part 60, Subpart Kb	See A.2.o.

2. Additional Terms and Conditions

2.a Permit to Install 03-17234 for this air contaminant source takes into account the use of an internal floating roof and a maximum material throughput of 121,000,000 gallons to control VOC emissions, whenever this air contaminant source is in operation, as a voluntary restriction as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3).

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

2.c The automatic bleeder vents shall be closed at all times except when the roof is floated off or landed on the roof leg supports, and the rim vents, if provided, shall be set to open when the roof is being floated off the roof leg supports or is at the manufacturer's recommended setting.

2.d All openings, except stub drains, shall be equipped with a cover, seal or lid which is to be in a closed position at all times except when in actual use for tank gauging or sampling.

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2.e The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.

2.f Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:

i. A foam- or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal). A liquid-mounted seal means a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank.

ii. Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.

iii. A mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

2.g Each opening in a 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.h Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.

2.I Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

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2.j Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.

2.k Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening.

2.l Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.

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

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

B. Operational Restrictions

1. The permittee shall not exceed an annual material throughput rate of 121,000,000 gallons.

2. The maximum true vapor pressure of organic liquid stored in this storage tank shall not exceed 0.4823 pound per square inch absolute.

C. Monitoring and/or Record keeping Requirements

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

   a. The types of petroleum liquids stored in the tank.

   b. The maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 0.4823 pound per square inch absolute. Available data on the storage temperature may be used to determine the maximum true vapor pressure as in the following:

      i. For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For

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vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service.

ii. For refined petroleum products the vapor pressure may be obtained by the following:

(a) Available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517 (incorporated by reference--see Sec. 60.17), unless the Ohio EPA, NWDO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).

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

iii. For other liquids, the vapor pressure:

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

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

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

(d) Calculated by an appropriate method approved by the Ohio EPA, NWDO.

2. Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel.

3. For vessels equipped with a liquid-mounted or mechanical shoe primary seal, the permittee shall visually inspect the internal floating roof and the primary seal or the

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secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from Ohio EPA, NWDO in the inspection report required in D.3. Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

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

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

   b. The permittee shall visually inspect the vessel as specified in C.3.

5. The permittee shall visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in C.3 and C.4.b and at intervals no greater than 5 years in the case of vessels specified in C.4.a.

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

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

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

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

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

D. Reporting Requirements

1. The permittee shall notify the Ohio EPA, NWDO in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by C.2 and C.5 to afford the Ohio EPA, NWDO the opportunity to have an observer present. If the inspection required by C.5 is not planned and the owner or operator could not have known about the inspection 30 days in advance or refilling the tank, the owner or operator shall notify the Ohio EPA, NWDO at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Ohio EPA, NWDO at least 7 days prior to the refilling.

2. The permittee shall furnish the Ohio EPA, NWDO with a report that describes the control equipment and certifies that the control equipment meets the specifications of A.2.e through A.2.m and C.2. This report shall be an attachment to the notification of the actual date of initial startup of an affected facility postmarked within 15 days after such date.

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

4. After each inspection required by C.4 that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in C.4.b, a report shall be furnished to the Ohio EPA, NWDO within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of A.2.e through A.2.m or C.4 and list each repair made.

5. If the permittee placed, stored, or held in this emissions unit any petroleum liquid with a true vapor pressure which was greater than 0.4823 pounds per square inch absolute, the permittee shall notify the Ohio EPA, NWDO within 30 days of becoming aware of the occurrence.

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6. The permittee shall submit records that summarize the total annual material throughput for this emissions unit. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

E. Testing Requirements

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

   Emission Limitation:
   0.50 ton/year of VOC

   Applicable Compliance Method:
   The permittee shall demonstrate compliance with the annual allowable VOC emission limitation by rim seal loss, withdraw loss and deck fitting loss calculations as determined by U.S. EPA Tanks 4.0 program with a maximum annual material throughput of 121,000,000 gallons.

F. Miscellaneous Requirements

None

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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 -(T002) - 200,000 gallon Above Ground Internal Floating Roof Storage Tank (200 Proof Ethanol Tank)

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(C)	Volatile organic compounds (VOC) shall not exceed 0.50 ton/year
OAC rule 3745-21-09(L)	See A.2.n.
40 CFR, Part 60, Subpart Kb	See A.2.o.

2. Additional Terms and Conditions

2.a Permit to Install 03-17234 for this air contaminant source takes into account the use of an internal floating roof and a maximum material throughput of 121,000,000 gallons to control VOC emissions, whenever this air contaminant source is in operation, as a voluntary restriction as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3).

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

2.c The automatic bleeder vents shall be closed at all times except when the roof is floated off or landed on the roof leg supports, and the rim vents, if provided, shall be set to open when the roof is being floated off the roof leg supports or is at the manufacturer's recommended setting.

2.d All openings, except stub drains, shall be equipped with a cover, seal or lid which is to be in a closed position at all times except when in actual use for tank gauging or sampling.

2.e The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times,

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except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.

2.f Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:

i. A foam- or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal). A liquid-mounted seal means a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank.

ii. Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.

iii. A mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

2.g Each opening in a 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.h Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.

2.i Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

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2.j Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.

2.k Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening.

2.l Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.

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

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

B. Operational Restrictions

1. The permittee shall not exceed an annual material throughput rate of 121,000,000 gallons.

2. The maximum true vapor pressure of organic liquid stored in this storage tank shall not exceed 0.4823 pound per square inch absolute.

C. Monitoring and/or Record keeping Requirements

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

   a. The types of petroleum liquids stored in the tank.

   b. The maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 0.4823 pound per square inch absolute. Available data on the storage temperature may be used to determine the maximum true vapor pressure as in the following:

      i. For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For

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vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service.

ii. For refined petroleum products the vapor pressure may be obtained by the following:

(a) Available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517 (incorporated by reference--see Sec. 60.17), unless the Ohio EPA, NWDO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).

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

iii. For other liquids, the vapor pressure:

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

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

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

(d) Calculated by an appropriate method approved by the Ohio EPA, NWDO.

2. Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel.

3. For vessels equipped with a liquid-mounted or mechanical shoe primary seal, the permittee shall visually inspect the internal floating roof and the primary seal or the

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secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from Ohio EPA, NWDO in the inspection report required in D.3. Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

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

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

   b. The permittee shall visually inspect the vessel as specified in C.3.

5. The permittee shall visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in C.3 and C.4.b and at intervals no greater than 5 years in the case of vessels specified in C.4.a.

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

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

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

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

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

D. Reporting Requirements

1. The permittee shall notify the Ohio EPA, NWDO in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by C.2 and C.5 to afford the Ohio EPA, NWDO the opportunity to have an observer present. If the inspection required by C.5 is not planned and the owner or operator could not have known about the inspection 30 days in advance or refilling the tank, the owner or operator shall notify the Ohio EPA, NWDO at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Ohio EPA, NWDO at least 7 days prior to the refilling.

2. The permittee shall furnish the Ohio EPA, NWDO with a report that describes the control equipment and certifies that the control equipment meets the specifications of A.2.e through A.2.m and C.2. This report shall be an attachment to the notification of the actual date of initial startup of an affected facility postmarked within 15 days after such date.

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

4. After each inspection required by C.4 that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in C.4.b, a report shall be furnished to the Ohio EPA, NWDO within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of A.2.e through A.2.m or C.4 and list each repair made.

5. If the permittee placed, stored, or held in this emissions unit any petroleum liquid with a true vapor pressure which was greater than 0.4823 pounds per square inch absolute, the permittee shall notify the Ohio EPA, NWDO within 30 days of becoming aware of the occurrence.

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6. The permittee shall submit records that summarize the total annual material throughput for this emissions unit. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

E. Testing Requirements

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

   Emission Limitation:
   0.50 ton/year of VOC

   Applicable Compliance Method:
   The permittee shall demonstrate compliance with the annual allowable VOC emission limitation by rim seal loss, withdraw loss and deck fitting loss calculations as determined by U.S. EPA Tanks 4.0 program with a maximum annual material throughput of 121,000,000 gallons.

F. Miscellaneous Requirements

None

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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 -(T003) - 200,000 gallon Above Ground Internal Floating Roof Storage Tank (Gasoline Denaturant Tank)

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(C)	Volatile organic compounds shall not exceed 1.21 ton/year.
40 CFR, part 60, Subpart Kb	See A.2.b through A.2.m.
OAC rule 3745-21-09(L)	See A.2.n.

2. Additional Terms and Conditions

2.a Permit to Install 03-17156 for this air contaminant source takes into account the use of a ventless delivery system for the unloading of gasoline to this storage tank , an internal floating roof and a maximum material throughput of 3,045,600 gallons to control VOC emissions, whenever this air contaminant source is in operation, as a voluntary restriction as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3).

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

2.c The automatic bleeder vents shall be closed at all times except when the roof is floated off or landed on the roof leg supports, and the rim vents, if provided, shall be set to open when the roof is being floated off the roof leg supports or is at the manufacturer's recommended setting.

2.d All openings, except stub drains, shall be equipped with a cover, seal or lid which is to be in a closed position at all times except when in actual use for tank gauging or sampling.

2.e The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed

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roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.

2.f Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:

i. A foam- or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal). A liquid-mounted seal means a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank.

ii. Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.

iii. A mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

2.g Each opening in a 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.h Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.

2.I Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

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2.j Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.

2.k Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening.

2.l Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.

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

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

B. Operational Restrictions

1. The permittee shall not exceed an annual material throughput rate of 6,050,000 gallons.

2. The maximum true vapor pressure of organic liquid stored in this storage tank shall not exceed 4.3534 pound per square inch absolute.

C. Monitoring and/or Record keeping Requirements

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

   a. The types of petroleum liquids stored in the tank.

   b. The maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 4.3534 pound per square inch absolute. Available data on the storage temperature may be used to determine the maximum true vapor pressure as in the following:

      i. For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For

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vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service.

ii. For refined petroleum products the vapor pressure may be obtained by the following:

(a) Available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517 (incorporated by reference--see Sec. 60.17), unless the Ohio EPA, NWDO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).

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

iii. For other liquids, the vapor pressure:

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

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

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

(d) Calculated by an appropriate method approved by the Ohio EPA, NWDO.

2. Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel.

3. For vessels equipped with a liquid-mounted or mechanical shoe primary seal, the permittee shall visually inspect the internal floating roof and the primary seal or the

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secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Ohio EPA, NWDO in the inspection report required in D.3. Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

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

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

   b. The permittee shall visually inspect the vessel as specified in C.3.

5. The permittee shall visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in C.3 and C.4.b and at intervals no greater than 5 years in the case of vessels specified in C.4.a.

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

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

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

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

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

D. Reporting Requirements

1. The permittee shall notify the Ohio EPA, NWDO in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by C.2 and C.5 to afford the Ohio EPA, NWDO the opportunity to have an observer present. If the inspection required by C.5 is not planned and the owner or operator could not have known about the inspection 30 days in advance or refilling the tank, the owner or operator shall notify the Ohio EPA, NWDO at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Ohio EPA, NWDO at least 7 days prior to the refilling.

2. The permittee shall furnish the Ohio EPA, NWDO with a report that describes the control equipment and certifies that the control equipment meets the specifications of A.2.e through A.2.m and C.2. This report shall be an attachment to the notification of the actual date of initial startup of an affected facility postmarked within 15 days after such date.

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

4. After each inspection required by C.4 that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in C.4.b, a report shall be furnished to the Ohio EPA, NWDO within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of A.2.e through A.2.m or C.4 and list each repair made.

5. If the permittee placed, stored, or held in this emissions unit any petroleum liquid with a true vapor pressure which was greater than 4.3534 pounds per square inch absolute, the permittee shall notify the Ohio EPA, NWDO within 30 days of becoming aware of the occurrence.

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6. The permittee shall submit records that summarize the total annual material throughput for this emissions unit. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

E. Testing Requirements

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

   Emission Limitation:
   1.21 ton/year of VOC

   Applicable Compliance Method:
   The permittee shall demonstrate compliance with the annual allowable VOC emission limitation by rim seal loss, withdraw loss and deck fitting loss calculations as determined by U.S. EPA Tanks 4.0 program with a maximum annual material throughput of 6,050,000 gallons.

F. Miscellaneous Requirements

None

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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 - (T004) - 1,500,000 gallon Above Ground Internal Floating Roof Storage Tank (Denatured Ethanol Tank no. 1)

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(C)	Volatile organic compounds (VOC) shall not exceed 0.30 ton/year.
OAC rule 3745-21-09(L)	See A.2.n.
40 CFR, Part 60, Subpart Kb	See A.2.o.

2. Additional Terms and Conditions

2.a Permit to Install 03-17234 for this air contaminant source takes into account the use of an internal floating roof and a maximum material throughput of 63,525,000 gallons to control VOC emissions, whenever this air contaminant source is in operation, as a voluntary restriction as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3).

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

2.c The automatic bleeder vents shall be closed at all times except when the roof is floated off or landed on the roof leg supports, and the rim vents, if provided, shall be set to open when the roof is being floated off the roof leg supports or is at the manufacturer's recommended setting.

2.d All openings, except stub drains, shall be equipped with a cover, seal or lid which is to be in a closed position at all times except when in actual use for tank gauging or sampling.

2.e The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times,

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except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.

2.f Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:

i. A foam- or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal). A liquid-mounted seal means a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank.

ii. Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.

iii. A mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

2.g Each opening in a 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.h Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.

2.I Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

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2.j Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.

2.k Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening.

2.l Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.

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

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

B. Operational Restrictions

1. The permittee shall not exceed an annual material throughput rate of 63,525,000 gallons.

2. The maximum true vapor pressure of organic liquid stored in this storage tank shall not exceed 0.5817 pound per square inch absolute.

C. Monitoring and/or Record keeping Requirements

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

   a. The types of petroleum liquids stored in the tank.

   b. The maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 0.5817 pound per square inch absolute. Available data on the storage temperature may be used to determine the maximum true vapor pressure as in the following:

      i. For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For

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vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service.

ii. For refined petroleum products the vapor pressure may be obtained by the following:

(a) Available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517 (incorporated by reference--see Sec. 60.17), unless the Ohio EPA, NWDO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).

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

iii. For other liquids, the vapor pressure:

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

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

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

(d) Calculated by an appropriate method approved by the Ohio EPA, NWDO.

2. Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel.

3. For vessels equipped with a liquid-mounted or mechanical shoe primary seal, the permittee shall visually inspect the internal floating roof and the primary seal or the

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secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Ohio EPA, NWDO in the inspection report required in D.3. Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

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

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

   b. The permittee shall visually inspect the vessel as specified in C.3.

5. The permittee shall visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in C.3 and C.4.b and at intervals no greater than 5 years in the case of vessels specified in C.4.a.

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

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

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

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

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

D. Reporting Requirements

1. The permittee shall notify the Ohio EPA, NWDO in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by C.2 and C.5 to afford the Ohio EPA, NWDO the opportunity to have an observer present. If the inspection required by C.5 is not planned and the owner or operator could not have known about the inspection 30 days in advance or refilling the tank, the owner or operator shall notify the Ohio EPA, NWDO at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Ohio EPA, NWDO at least 7 days prior to the refilling.

2. The permittee shall furnish the Ohio EPA, NWDO with a report that describes the control equipment and certifies that the control equipment meets the specifications of A.2.e through A.2.m and C.2. This report shall be an attachment to the notification of the actual date of initial startup of an affected facility postmarked within 15 days after such date.

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

4. After each inspection required by C.4 that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in C.4.b, a report shall be furnished to the Ohio EPA, NWDO within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of A.2.e through A.2.m or C.4 and list each repair made.

5. If the permittee placed, stored, or held in this emissions unit any petroleum liquid with a true vapor pressure which was greater than 0.5817 pounds per square inch absolute, the permittee shall notify the Ohio EPA, NWDO within 30 days of becoming aware of the occurrence.

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6. The permittee shall submit records that summarize the total annual material throughput for this emissions unit. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

E. Testing Requirements

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

   Emission Limitation:
   0.30 ton/year of VOC

   Applicable Compliance Method:
   The permittee shall demonstrate compliance with the annual allowable VOC emission limitation by rim seal loss, withdraw loss and deck fitting loss calculations as determined by U.S. EPA Tanks 4.0 program with a maximum annual material throughput of 62,525,000 gallons.

F. Miscellaneous Requirements

None

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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 -(T005) - 1,500,000 gallon Above Ground Internal Floating Roof Storage Tank (Denatured Ethanol Tank no. 2)

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(C)	Volatile organic compounds (VOC) shall not exceed 0.30 ton/year.
OAC rule 3745-21-09(L)	See A.2.n.
40 CFR, Part 60, Subpart Kb	See A.2.o.

2. Additional Terms and Conditions

2.a Permit to Install 03-17234 for this air contaminant source takes into account the use of an internal floating roof and a maximum material throughput of 63,525,000 gallons to control VOC emissions, whenever this air contaminant source is in operation, as a voluntary restriction as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3).

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

2.c The automatic bleeder vents shall be closed at all times except when the roof is floated off or landed on the roof leg supports, and the rim vents, if provided, shall be set to open when the roof is being floated off the roof leg supports or is at the manufacturer's recommended setting.

2.d All openings, except stub drains, shall be equipped with a cover, seal or lid which is to be in a closed position at all times except when in actual use for tank gauging or sampling.

2.e The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times,

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except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.

2.f Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:

i. A foam- or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal). A liquid-mounted seal means a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank.

ii. Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.

iii. A mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

2.g Each opening in a 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.h Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.

2.I Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

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2.j Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.

2.k Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening.

2.l Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.

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

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

B. Operational Restrictions

1. The permittee shall not exceed an annual material throughput rate of 63,525,000 gallons.

2. The maximum true vapor pressure of organic liquid stored in this storage tank shall not exceed 0.5817 pound per square inch absolute.

C. Monitoring and/or Record keeping Requirements

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

   a. The types of petroleum liquids stored in the tank.

   b. The maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 0.5817 pound per square inch absolute. Available data on the storage temperature may be used to determine the maximum true vapor pressure as in the following:

      i. For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For

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vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service.

ii. For refined petroleum products the vapor pressure may be obtained by the following:

(a) Available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517 (incorporated by reference--see Sec. 60.17), unless the Ohio EPA, NWDO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).

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

iii. For other liquids, the vapor pressure:

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

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

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

(d) Calculated by an appropriate method approved by the Ohio EPA, NWDO.

2. Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel.

3. For vessels equipped with a liquid-mounted or mechanical shoe primary seal, the permittee shall visually inspect the internal floating roof and the primary seal or the

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secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Ohio EPA, NWDO in the inspection report required in D.3. Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

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

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

   b. The permittee shall visually inspect the vessel as specified in C.3.

5. The permittee shall visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in C.3 and C.4.b and at intervals no greater than 5 years in the case of vessels specified in C.4.a.

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

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

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

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

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

D. Reporting Requirements

1. The permittee shall notify the Ohio EPA, NWDO in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by C.2 and C.5 to afford the Ohio EPA, NWDO the opportunity to have an observer present. If the inspection required by C.5 is not planned and the owner or operator could not have known about the inspection 30 days in advance or refilling the tank, the owner or operator shall notify the Ohio EPA, NWDO at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Ohio EPA, NWDO at least 7 days prior to the refilling.

2. The permittee shall furnish the Ohio EPA, NWDO with a report that describes the control equipment and certifies that the control equipment meets the specifications of A.2.e through A.2.m and C.2. This report shall be an attachment to the notification of the actual date of initial startup of an affected facility postmarked within 15 days after such date.

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

4. After each inspection required by C.4 that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in C.4.b, a report shall be furnished to the Ohio EPA, NWDO within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of A.2.e through A.2.m or C.4 and list each repair made.

5. If the permittee placed, stored, or held in this emissions unit any petroleum liquid with a true vapor pressure which was greater than 0.5817 pounds per square inch absolute, the permittee shall notify the Ohio EPA, NWDO within 30 days of becoming aware of the occurrence.

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6. The permittee shall submit records that summarize the total annual material throughput for this emissions unit. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

E. Testing Requirements

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

   Emission Limitation:
   0.30 ton/year of VOC

   Applicable Compliance Method:
   The permittee shall demonstrate compliance with the annual allowable VOC emission limitation by rim seal loss, withdraw loss and deck fitting loss calculations as determined by U.S. EPA Tanks 4.0 program with a maximum annual material throughput of 62,525,000 gallons.

F. Miscellaneous Requirements

None

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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 -(T006) - 3,000 gallon Fixed Roof Storage Tank (Corrosion Inhibitor Tank)

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(C)	Volatile organic compounds (VOC) shall not exceed 0.01 ton/year. See Section A.2.a.
OAC rule 3745-21-07(D)(2)	See Section A.2.b.

2. Additional Terms and Conditions

2.a Permit to Install 03-17234 for this air contaminant source takes into account the use of submerged fill and a maximum material throughput of 60,162 gallons to control VOC emissions, whenever this air contaminant source is in operation, as a voluntary restriction as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3).

2.b The emission requirements specified by this rule are equivalent to the emission requirements established pursuant to OAC rule 3745-31-05(C).

B. Operational Restrictions

1. The permittee shall not exceed an annual material throughput rate of 60,162 gallons.

C. Monitoring and/or Recordkeeping Requirements

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

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D. Reporting Requirements

1. The permittee shall submit records that summarize the total annual material throughput for this emissions unit. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

E. Testing Requirements

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

   Emission Limitation:
   0.01 ton/year of VOC

   Applicable Compliance Method:
   The permittee shall demonstrate compliance with the annual allowable VOC emission limitation by rim seal loss, withdraw loss and deck fitting loss calculations as determined by U.S. EPA Tanks 4.0 program with a maximum annual material throughput of 60,162 gallons.

F. Miscellaneous Requirements

None

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