



Environmental
Protection Agency

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

6/29/2011

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

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE
Facility ID: 0819750245
Permit Number: P0108197
Permit Type: Administrative Modification
County: Darke

Certified Mail

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

Dear Permit Holder:

Enclosed please find a final Air Pollution Permit-to-Install and Operate (PTIO) which will allow you to install, modify, and/or operate the described emissions unit(s) in the manner indicated in the permit. Because this permit contains conditions and restrictions, please read it very carefully. Please complete a survey at www.epa.ohio.gov/dapc/permitsurvey.aspx and give us feedback on your permitting experience. We value your opinion.

The issuance of this PTI is a final action of the Director 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, made payable to "Ohio Treasurer Josh Mandel," 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

If you have any questions, please contact Regional Air Pollution Control Agency at (937)225-4435 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. This permit can be accessed electronically on the DAPCWeb page, www.epa.ohio.gov/dapc, by clicking the "Issued Air Pollution Control Permits" link.

Sincerely,

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

Cc: RAPCA



FINAL

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

Facility ID: 0819750245
Permit Number: P0108197
Permit Type: Administrative Modification
Issued: 6/29/2011
Effective: 6/29/2011
Expiration: 4/29/2014



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

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Authorization

Facility ID: 0819750245
Application Number(s): M0001271
Permit Number: P0108197
Permit Description: Revision to the short term NOx emissions limit averaging period and clarification of the RTO temperature monitoring requirement.
Permit Type: Administrative Modification
Permit Fee: \$1,800.00
Issue Date: 6/29/2011
Effective Date: 6/29/2011
Expiration Date: 4/29/2014
Permit Evaluation Report (PER) Annual Date: Apr 1 - Mar 31, Due May 15

This document constitutes issuance to:

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

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

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

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

The above named entity is hereby granted this Permit-to-Install and Operate for the air contaminant source(s) (emissions unit(s)) listed in this section pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the described emissions unit(s) will operate in compliance with applicable State and federal laws and regulations.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency


Scott J. Nally
Director



Authorization (continued)

Permit Number: P0108197

Permit Description: Revision to the short term NOx emissions limit averaging period and clarification of the RTO temperature monitoring requirement.

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

Emissions Unit ID:	P013
Company Equipment ID:	Methanators
Superseded Permit Number:	P0104717
General Permit Category and Type:	Not Applicable

Emissions Unit ID:	P902
Company Equipment ID:	DDGSHandling&Cooling
Superseded Permit Number:	P0104717
General Permit Category and Type:	Not Applicable

Group Name: Cook, Yeast, Distill & Dehydrate

Emissions Unit ID:	P005
Company Equipment ID:	Mash & Yeast Opertns
Superseded Permit Number:	P0104717
General Permit Category andType:	Not Applicable
Emissions Unit ID:	P007
Company Equipment ID:	Distillation
Superseded Permit Number:	P0104717
General Permit Category andType:	Not Applicable

Group Name: DDGS Dryers

Emissions Unit ID:	P008
Company Equipment ID:	DDGSDryer#1
Superseded Permit Number:	P0104717
General Permit Category andType:	Not Applicable
Emissions Unit ID:	P009
Company Equipment ID:	DDGSDryer#2
Superseded Permit Number:	P0104717
General Permit Category andType:	Not Applicable
Emissions Unit ID:	P010
Company Equipment ID:	DDGSDryer#3
Superseded Permit Number:	P0104717
General Permit Category andType:	Not Applicable
Emissions Unit ID:	P011
Company Equipment ID:	DDGSDryer#4
Superseded Permit Number:	P0104717
General Permit Category andType:	Not Applicable

Group Name: RTO/Waste Heat Recovery Boilers

Emissions Unit ID:	B001
Company Equipment ID:	122 MMBtu/hr WHRB1
Superseded Permit Number:	P0104717
General Permit Category andType:	Not Applicable
Emissions Unit ID:	B002
Company Equipment ID:	122 mmBtu/hr WHRB2
Superseded Permit Number:	P0104717
General Permit Category andType:	Not Applicable

A. Standard Terms and Conditions

1. What does this permit-to-install and operate ("PTIO") allow me to do?

This permit allows you to install and operate the emissions unit(s) identified in this PTIO. You must install and operate the unit(s) in accordance with the application you submitted and all the terms and conditions contained in this PTIO, including emission limits and those terms that ensure compliance with the emission limits (for example, operating, recordkeeping and monitoring requirements).

2. Who is responsible for complying with this permit?

The person identified on the "Authorization" page, above, is responsible for complying with this permit until the permit is revoked, terminated, or transferred. "Person" means a person, firm, corporation, association, or partnership. The words "you," "your," or "permittee" refer to the "person" identified on the "Authorization" page above.

The permit applies only to the emissions unit(s) identified in the permit. If you install or modify any other equipment that requires an air permit, you must apply for an additional PTIO(s) for these sources.

3. What records must I keep under this permit?

You must keep all records required by this permit, including monitoring data, test results, strip-chart recordings, calibration data, maintenance records, and any other record required by this permit for five years from the date the record was created. You can keep these records electronically, provided they can be made available to Ohio EPA during an inspection at the facility. Failure to make requested records available to Ohio EPA upon request is a violation of this permit requirement.

4. What are my permit fees and when do I pay them?

There are two fees associated with permitted air contaminant sources in Ohio:

- PTIO fee. This one-time fee is based on a fee schedule in accordance with Ohio Revised Code (ORC) section 3745.11, or based on a time and materials charge for permit application review and permit processing if required by the Director.

You will be sent an invoice for this fee after you receive this PTIO and payment is due within 30 days of the invoice date. You are required to pay the fee for this PTIO even if you do not install or modify your operations as authorized by this permit.

- Annual emissions fee. Ohio EPA will assess a separate fee based on the total annual emissions from your facility. You self-report your emissions in accordance with Ohio Administrative Code (OAC) Chapter 3745-78. This fee assessed is based on a fee schedule in ORC section 3745.11 and funds Ohio EPA's permit compliance oversight activities. Unless otherwise specified, facilities subject to one or more synthetic minor restrictions must use Ohio EPA's "Air Services" to submit annual emissions associated with this permit requirement. Ohio EPA will notify you when it is time to report your emissions and to pay your annual emission fees.

5. When does my PTIO expire, and when do I need to submit my renewal application?

This permit expires on the date identified at the beginning of this permit document (see "Authorization" page above) and you must submit a renewal application to renew the permit. Ohio EPA will send a renewal notice to you approximately six months prior to the expiration date of this permit. However, it is

very important that you submit a complete renewal permit application (postmarked prior to expiration of this permit) even if you do not receive the renewal notice.

If a complete renewal application is submitted before the expiration date, Ohio EPA considers this a timely application for purposes of ORC section 119.06, and you are authorized to continue operating the emissions unit(s) covered by this permit beyond the expiration date of this permit until final action is taken by Ohio EPA on the renewal application.

6. What happens to this permit if my project is delayed or I do not install or modify my source?

This PTIO expires 18 months after the issue date identified on the "Authorization" page above unless otherwise specified if you have not (1) started constructing the new or modified emission sources identified in this permit, or (2) entered into a binding contract to undertake such construction. This deadline can be extended by up to 12 months, provided you apply to Ohio EPA for this extension within a reasonable time before the 18-month period has ended and you can show good cause for any such extension.

7. What reports must I submit under this permit?

An annual permit evaluation report (PER) is required in addition to any malfunction reporting required by OAC rule 3745-15-06 or other specific rule-based reporting requirement identified in this permit. Your PER due date is identified in the Authorization section of this permit.

8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit?

If you are required to obtain a Title V permit under OAC Chapter 3745-77 in the future, the permit-to-operate portion of this permit will be superseded by the issued Title V permit. From the effective date of the Title V permit forward, this PTIO will effectively become a PTI (permit-to-install) in accordance with OAC rule 3745-31-02(B). The following terms and conditions will no longer be applicable after issuance of the Title V permit: Section B, Term 1.b) and Section C, for each emissions unit, Term a)(2).

The PER requirements in this permit remain effective until the date the Title V permit is issued and is effective, and cease to apply after the effective date of the Title V permit. The final PER obligation will cover operations up to the effective date of the Title V permit and must be submitted on or before the submission deadline identified in this permit on the last day prior to the effective date of the Title V permit.

9. What are my obligations when I perform scheduled maintenance on air pollution control equipment?

You must perform scheduled maintenance of air pollution control equipment in accordance with OAC rule 3745-15-06(A). If scheduled maintenance requires shutting down or bypassing any air pollution control equipment, you must also shut down the emissions unit(s) served by the air pollution control equipment during maintenance, unless the conditions of OAC rule 3745-15-06(A)(3) are met. Any emissions that exceed permitted amount(s) under this permit (unless specifically exempted by rule) must be reported as deviations in the annual permit evaluation report (PER), including nonexempt excess emissions that occur during approved scheduled maintenance.

10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?

If you have a reportable malfunction of any emissions unit(s) or any associated air pollution control system, you must report this to the Regional Air Pollution Control Agency in accordance with OAC rule 3745-15-06(B). Malfunctions that must be reported are those that result in emissions that exceed permitted emission levels. It is your responsibility to evaluate control equipment breakdowns and operational upsets to determine if a reportable malfunction has occurred.

If you have a malfunction, but determine that it is not a reportable malfunction under OAC rule 3745-15-06(B), it is recommended that you maintain records associated with control equipment breakdown or process upsets. Although it is not a requirement of this permit, Ohio EPA recommends that you maintain records for non-reportable malfunctions.

11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located?

Yes. Under Ohio law, the Director or his authorized representative may inspect the facility, conduct tests, examine records or reports to determine compliance with air pollution laws and regulations and the terms and conditions of this permit. You must provide, within a reasonable time, any information Ohio EPA requests either verbally or in writing.

12. What happens if one or more emissions units operated under this permit is/are shut down permanently?

Ohio EPA can terminate the permit terms associated with any permanently shut down emissions unit. "Shut down" means the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31.

You should notify Ohio EPA of any emissions unit that is permanently shut down by submitting¹ a certification that identifies the date on which the emissions unit was permanently shut down. The certification must be submitted by an authorized official from the facility. You cannot continue to operate an emissions unit once the certification has been submitted to Ohio EPA by the authorized official.

You must comply with all recordkeeping and reporting for any permanently shut down emissions unit in accordance with the provisions of the permit, regulations or laws that were enforceable during the period of operation, such as the requirement to submit a PER, air fee emission report, or malfunction report. You must also keep all records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, for at least five years from the date the record was generated.

Again, you cannot resume operation of any emissions unit certified by the authorized official as being permanently shut down without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

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

13. Can I transfer this permit to a new owner or operator?

You can transfer this permit to a new owner or operator. If you transfer the permit, you must follow the procedures in OAC Chapter 3745-31, including notifying Ohio EPA or the local air agency of the change in ownership or operator. Any transferee of this permit must assume the responsibilities of the transferor permit holder.

14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?

This permit and OAC rule 3745-15-07 prohibit operation of the air contaminant source(s) regulated under this permit in a manner that causes a nuisance. Ohio EPA can require additional controls or modification of the requirements of this permit through enforcement orders or judicial enforcement action if, upon investigation, Ohio EPA determines existing operations are causing a nuisance.

15. What happens if a portion of this permit is determined to be invalid?

If a portion of this permit is determined to be invalid, the remainder of the terms and conditions remain valid and enforceable. The exception is where the enforceability of terms and conditions are dependent on the term or condition that was declared invalid.

B. Facility-Wide Terms and Conditions

Final Permit-to-Install and Operate

Andersons Marathon Ethanol LLC

Permit Number: P0108197

Facility ID: 0819750245

Effective Date: 6/29/2011

1. This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - a) For the purpose of a permit-to-install document, the facility-wide terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (1) None.
 - b) For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - (1) None.
2. The Ohio EPA has determined that this facility may be applicable to the requirements of an area source MACT/GACT rule that the Ohio EPA does not have the delegated authority to implement. Although Ohio EPA has determined that an area source MACT (also known as the GACT) may apply, at this time Ohio EPA does not have the authority to enforce this standard. Instead, U.S. EPA has the authority to enforce this standard. Please be advised that all requirements associated with these rules are in effect and are enforceable by U.S. EPA. For more information on the area source rules, please refer to the follow U.S. EPA website: <http://www.epa.gov/ttn/atw/area/arearules.html>.

C. Emissions Unit Terms and Conditions

1. P013, Methanators

Operations, Property and/or Equipment Description:

Methanators vented to DDGS Dryer Numbers 1 and 3 (P008 and P010) or to a Flare

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - a. b)(1)e, d)(7), d)(8) and e)(4).
 - (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - a. b)(1)f, b)(1)g, c)(1), d)(6), e)(1), e)(3), f)(1)b, f)(1)d and f)(1)f.
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/06	See b)(2)f.
d.	OAC rule 3745-21-09(DD) and 40 CFR Part 60, Subpart VV	See the requirements for emissions unit P801.
e.	ORC 3704.03(F) and OAC rule 3745-114-01	See d)(7), d)(8) and e)(4).
f.	OAC rule 3745-31-05(D) (synthetic minor to avoid TV)	Emissions exhausted from Stack S10 serving this emissions unit shall not exceed 23.1 tons of VOC per rolling 12-month period. Emissions exhausted from flare Stack S60 serving this emissions unit shall not exceed 0.15 ton of NO _x per rolling 12-month period.
g.	OAC rule 3745-31-05(D) (synthetic minor to avoid TV) OAC rule 3745-31-05(E), as effective 12/01/06 (synthetic minor to avoid BAT)	Emissions exhausted from flare Stack S60 serving this emissions unit shall not exceed 0.63 ton of CO per rolling 12-month period. See b)(2)g.

(2) Additional Terms and Conditions

- a. Emissions from this emissions unit are typically vented to both DDGS Dryer Number 1 (P008) and a flare. If the dryer is not operating, all of the emissions from this emissions unit are vented to the flare. The worst-case emissions scenario is when this emissions unit vents to the dryer and the flare.
- b. Emissions from B001, B002, P005, P007, P008, P009, P010, P011, P013 (except emissions vented to the flare Stack S60) and P902 (except emissions vented to Stack S70) are vented to a common stack identified as Stack S10.
- c. The rolling 12-month allowable emission rates are based on the annual production of 132,000,000 gallons of denatured ethanol.
- d. This emissions unit is permitted at its potential to emit, as defined in OAC rule 3745-31-01, for all pollutants.
- e. Best available technology (BAT) control requirements for this emissions unit has been determined to be the following:

Final Permit-to-Install and Operate

Andersons Marathon Ethanol LLC

Permit Number: P0108197

Facility ID: 0819750245

Effective Date: 6/29/2011

- i. implementation of a fugitive leak detection and repair program (LDAR) for all the miscellaneous process equipment associated with this emissions unit;
- ii. the use of the natural gas-fired thermal oxidizers to control VOC at 98% (or when this emissions unit is not vented to the thermal oxidizers, it will be vented to the flare to control VOC at 98%); and
- iii. maintain enclosures and vent all the emissions to the thermal oxidizers or flare to ensure compliance.

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

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

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

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

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

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

- i. The flare shall meet the following requirements:

- i. the flare shall be designed for and operated with no visible emissions except for periods not to exceed a total of five minutes during any one hundred twenty consecutive minutes; and
- ii. the flare shall be operated with either an electric arc ignition system or a pilot flame. If a pilot flame is employed, the flame shall be present at all times and shall be monitored with a thermocouple or any other equivalent device to detect the presence of the pilot flame. If an electric arc ignition

system is employed, the arcing shall pulse continually and shall be monitored to detect any failure.

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

c) Operational Restrictions

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

d) Monitoring and/or Recordkeeping Requirements

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

A "3-hour block of time" is defined as a successive, non-overlapping 3-hour block of time.

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

- a. each 3-hour block of time [as defined in d)(1)], when the emissions unit controlled by the thermal oxidizer was in operation, during which the average combustion temperature within the thermal oxidizer was more than 50 degrees Fahrenheit

below the average temperature measured during the most recent performance test that demonstrated the emissions unit was in compliance; and

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

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

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

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

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

- a. a description of the corrective action;
- b. the date corrective action was completed;
- c. the date and time the deviation ended;
- d. the total period of time (in minutes) during which there was a deviation;
- e. the temperature readings immediately after the corrective action was implemented; and
- f. the name(s) of the personnel who performed the work.

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

The temperature limit is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted

Final Permit-to-Install and Operate

Andersons Marathon Ethanol LLC

Permit Number: P0108197

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Effective Date: 6/29/2011

temperature limit based upon information obtained during future performance tests that demonstrate compliance with the allowable emission rate(s) for the controlled pollutant(s). In addition, approved revisions to the temperature limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

- (4) For each day during which the permittee burns a fuel other than biomethanator off-gases in this emissions unit, the permittee shall maintain a record of the type and quantity of fuel burned.
- (5) The permittee shall monitor the flare to ensure that it is operated and maintained in conformance with its design.
- (6) The permittee shall maintain monthly records of the following information:
 - a. the operating hours for this emissions unit while venting emissions to the flare for each month;
 - b. the operating hours of the emissions unit for each month;
 - c. the VOC emissions exhausted from Stack S10, in tons;
 - d. the CO and NO_x emissions exhausted through Stack S60, in tons;
 - e. the rolling, 12-month summation of VOC emissions exhausted from Stack S10, in tons; and
 - f. the rolling, 12-month summation of CO and NO_x emissions exhausted through Stack S60, in tons.
- (7) The permit to install and operate (PTIO) for this emissions unit was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the PTIO application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied to this emissions unit for each toxic pollutant, using data from the PTIO application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Acetaldehyde

TLV (mg/m³): 33.20

Maximum Hourly Emission Rate (lbs/hr): 0.40

Predicted 1-Hour Maximum Ground-Level Concentration (µg/m³): 61.20 (entire facility)

MAGLC (µg/m³): 790

Pollutant: Formaldehyde

TLV (mg/m³): 0.272

Maximum Hourly Emission Rate (lbs/hr): 0.48

Predicted 1-Hour Maximum Ground-Level Concentration (µg/m³): 5.05 (entire facility)

MAGLC (µg/m³): 6.47

- (8) The above described evaluation determined that the maximum ground level concentration for the new or modified source was less than 80% of the MAGLC. Per ORC 3704.03(F)(4)(b), the owner or operator shall submit an annual report that describes any changes to the emissions unit that affect the air toxic modeling. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:
- a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
- e) Reporting Requirements
- (1) The permittee shall submit quarterly deviation (excursion) reports that identify:
- a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
 - i. each 3-hour block of time [as defined in d)(1)] (start time and date, and end time and date) when the average combustion temperature within the thermal oxidizer was outside of the acceptable range;
 - ii. any period of time (start time and date, and end time and date) when the emissions unit was in operation and the process emissions were not vented to the thermal oxidizer;

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- iii. all exceedances of the rolling, 12-month operating hours limitation for this emissions unit while venting emissions to the flare;
 - iv. all exceedances of the rolling, 12-month VOC emissions limitation for emissions exhausted from Stack S10; and
 - v. all exceedances of the rolling, 12-month CO and NO_x emissions limitations for emissions exhausted from Stack S60.
- b. the probable cause of each deviation (excursion);
 - c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
 - d. the magnitude and duration of each deviation (excursion).

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

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

- (2) The permittee shall submit deviation (excursion) reports to the Regional Air Pollution Control Agency that identify each day when a fuel other than biomethanator off-gases was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
- (3) The permittee shall submit annual reports which specify the total VOC emissions exhausted from Stack S10 and the total CO and NO_x emissions exhausted from Stack S60 for the previous calendar year. This report shall be submitted by April 15 of each year. This requirement may be satisfied by including and identifying the specific emissions data from these emissions units in the annual Fee Emission Report.
- (4) The permittee shall submit annual reports that describe any changes to this emissions unit which affect the air toxic modeling. If no changes were made during the year, then a report shall be submitted stating that no changes were made. This report is due by January 31 of each year and shall cover the previous calendar year.
- (5) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.

f) Testing Requirements

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

a. Emissions Limitation

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

Applicable Compliance Method

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

b. Emissions Limitation

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

Applicable Compliance Method

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

c. Emissions Limitation

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

Applicable Compliance Method

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

Emissions = Flare Emissions + Pilot Burner Emissions

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

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

Flare Emissions = 0.44 lb/hr

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

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

Pilot Burner Emissions = 0.01 lb/hr

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

d. Emissions Limitation

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

Applicable Compliance Method

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

Emissions = Flare Emissions + Pilot Burner Emissions

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

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

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

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

e. Emissions Limitation

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

Applicable Compliance Method

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

Emissions = Flare Emissions + Pilot Burner Emissions

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

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

Flare Emissions = 2.37 lbs/hr

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

$$\text{Pilot Burner Emissions} = (0.1 \text{ mmBtu/hr}) * (0.084 \text{ lb/mmBtu})$$

$$\text{Pilot Burner Emissions} = 0.0084 \text{ lb/hr}$$

$$\text{Emissions} = 2.37 \text{ lbs/hr} + 0.0084 \text{ lb/hr} = 2.38 \text{ lbs/hr}$$

f. Emissions Limitation

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

Applicable Compliance Method

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

$$\text{Emissions} = \text{Flare Emissions} + \text{Pilot Burner Emissions}$$

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

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

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

$$\text{Pilot Burner Emissions} = (0.1 \text{ mmBtu/hr}) * (0.084 \text{ lb/mmBtu}) * (8760 \text{ hours/year}) / (2000 \text{ lbs/ton})$$

g) Miscellaneous Requirements

(1) None.

2. P902, DDGSHandling&Cooling

Operations, Property and/or Equipment Description:

DDGS Handling and Cooling controlled with a Baghouse

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - a. b)(1)e, d)(9), d)(10) and e)(5).
 - (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - a. b)(1)f, c)(1), d)(8), e)(1), e)(4), f)(1)b, f)(1)c, f)(1)l and f)(1)m.
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	<u>Emissions exhausted from Stack S10 serving this emissions unit shall not exceed:</u> 2.6 lbs/hr of particulate emissions (PE) and emissions of particulate matter less than 10 microns in diameter (PM ₁₀); and 5.3 lbs/hr of volatile organic compounds (VOC). Visible particulate emissions from the stack serving this emissions unit shall not exceed 10% opacity as a six-minute average.
b.	OAC rule 3745-31-05(A)(3)	<u>Emissions exhausted from Stack S70 serving this emissions unit shall not exceed:</u>

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	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>0.005 grain of PE per dry standard cubic foot of exhaust gases (gr/dscf);</p> <p>0.74 lbs/hr of PE and PM₁₀;</p> <p>2.40 lbs/hr of VOC; and</p> <p>Visible particulate emissions from Stack S70 shall not exceed 5% opacity as a six-minute average.</p> <p><u>Fugitive emissions shall not exceed:</u></p> <p>0.19 lb/hr and 0.82 TPY of PE;</p> <p>0.088 lb/hr and 0.38 TPY of PM₁₀; and</p> <p>Visible PE of fugitive dust shall not exceed 5% opacity as a three-minute average.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D).</p>
c.	OAC rule 3745-17-07(A)(1) and OAC rule 3745-17-10(B)(1)	The emission limitations specified by these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-17-07(B)	See b)(2)d.
e.	OAC rule 3745-17-08(B)	See b)(2)e.
f.	ORC 3704.03(F) and OAC rule 3745-114-01	See d)(9), d)(10) and e)(5).
g.	OAC rule 3745-31-05(D) (synthetic minor to avoid TV)	<p><u>Emissions exhausted from Stack S10 serving this emissions unit shall not exceed:</u></p> <p>11.6 tons of PE and PM₁₀ per rolling 12-month period;</p>

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h.	OAC rule 3745-31-05(D) (synthetic minor to avoid TV)	23.1 tons of VOC per rolling 12-month period; 3.34 tons of single HAP per rolling 12-month period; and 8.33 tons of combined HAPs per rolling 12-month period. <u>Emissions exhausted from Stack S70 serving this emissions unit shall not exceed:</u> 3.23 tons of PE and PM ₁₀ per rolling 12-month period; and 10.51 tons of VOC per rolling 12-month period.
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(2) Additional Terms and Conditions

- a. A fraction of the emissions from this source are vented to B001 and/or B002. The remaining fraction of emissions is vented to Stack S70 associated with this emissions unit.
- b. Emissions from B001, B002, P005, P007, P008, P009, P010, P011, P013 (except emissions vented to the flare Stack S60) and P902 (except emissions vented to Stack S70) are vented to a common stack identified as Stack S10.
- c. The rolling 12-month allowable emission rates are based on the annual production of 132,000,000 gallons of denatured ethanol.
- d. This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(B) pursuant to OAC rule 3745-17-07(B)(11)(e).
- e. The facility is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B).
- f. This emissions unit is permitted at its potential to emit, as defined in OAC rule 3745-31-01, for all pollutants.
- g. Best available technology (BAT) control requirements for this emissions unit has been determined to be the following:
 - i. the use of the natural gas-fired thermal oxidizers to control VOC emissions that are not vented to Stack S70, at 98% ;

- ii. maintain enclosures and vent emissions not vented to Stack S70 to the thermal oxidizers to ensure compliance; and
- iii. maintain enclosures and vent emissions to a baghouse with an outlet particulate emissions concentration of 0.005 gr/dscf.

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

c) Operational Restrictions

- (1) The annual amount of dried distillers grain solubles (DDGS) produced from this emissions unit shall not exceed 420,225 tons, based upon a rolling, 12-month summation of the DDGS production.

d) Monitoring and/or Recordkeeping Requirements

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

A "3-hour block of time" is defined as a successive, non-overlapping 3-hour block of time.

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

- a. each 3-hour block of time [as defined in d)(1)], when the emissions unit controlled by the thermal oxidizer was in operation, during which the average combustion temperature within the thermal oxidizer was more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit was in compliance; and
- b. a log (date and total time) of the downtime or bypass of the capture (collection) system and thermal oxidizer, and/or downtime of the monitoring equipment, when the associated emissions unit was in operation.

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

- (3) Whenever the monitored average combustion temperature within the thermal oxidizer deviates from the limit established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:
- a. the date and time the deviation began;
 - b. the magnitude of the deviation at that time;
 - c. the date the investigation was conducted;
 - d. the name(s) of the personnel who conducted the investigation; and
 - e. the findings and recommendations.

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

- a. a description of the corrective action;
- b. the date corrective action was completed;
- c. the date and time the deviation ended;
- d. the total period of time (in minutes) during which there was a deviation;
- e. the temperature readings immediately after the corrective action was implemented; and
- f. the name(s) of the personnel who performed the work.

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

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

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- (4) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across each baghouse is between 0.25 to 8 inches of water (manufacturer's specifications).
- (5) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across each baghouse when the controlled emissions unit is in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across each baghouse on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

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

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

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

- a. a description of the corrective action;
- b. the date corrective action was completed;
- c. the date and time the deviation ended;
- d. the total period of time (in minutes) during which there was a deviation;
- e. the pressure drop readings immediately after the corrective action was implemented; and
- f. the name(s) of the personnel who performed the work.

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

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

- (6) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit (Stacks S10 and S70). The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.

- (7) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive emissions from the egress points (i.e. building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log, including the date and time the daily check was performed. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.

- (8) The permittee shall maintain monthly records of the following information:
 - a. the operating hours for each month;
 - b. the DDGS production rate for each month, in tons;

- c. the PE, PM₁₀ and VOC emissions exhausted from Stack S10, in tons;
- d. the PE, PM₁₀ and VOC emissions exhausted from Stack S70, in tons;
- e. the rolling, 12-month summation of the DDGS production, in tons;
- f. the rolling, 12-month summation of PE, PM₁₀ and VOC emissions exhausted from Stack S10, in tons, in tons; and
- g. the rolling, 12-month summation of PE, PM₁₀ and VOC emissions exhausted from Stack S70, in tons.

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

Pollutant: Acetaldehyde

TLV (mg/m³): 33.20

Maximum Hourly Emission Rate (lbs/hr): 0.40

Predicted 1-Hour Maximum Ground-Level Concentration (µg/m³): 61.20 (entire facility)

MAGLC (µg/m³): 790

Pollutant: Formaldehyde

TLV (mg/m³): 0.272

Maximum Hourly Emission Rate (lbs/hr): 0.48

Predicted 1-Hour Maximum Ground-Level Concentration (µg/m³): 5.05 (entire facility)

MAGLC (µg/m³): 6.47

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

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- a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

e) Reporting Requirements

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

- a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
 - i. each 3-hour block of time [as defined in d)(1)] (start time and date, and end time and date) when the average combustion temperature within the thermal oxidizer was outside of the acceptable range;
 - ii. any period of time (start time and date, and end time and date) when the emissions unit was in operation and the process emissions were not vented to the thermal oxidizer;
 - iii. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;
 - iv. any period of time (start time and date, and end time and date) when the emissions unit was in operation and the process emissions were not vented to the baghouse;
 - v. all exceedances of the rolling, 12-month limitation of the DDGS production;
 - vi. all exceedances of the rolling, 12-month PE, PM₁₀ and VOC emissions limitation for emissions exhausted from Stack S10; and
 - vii. all exceedances of the rolling, 12-month PE, PM₁₀ and VOC emissions limitation for emissions exhausted from Stack S70.

- b. the probable cause of each deviation (excursion);
- c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
- d. the magnitude and duration of each deviation (excursion).

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

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

- (2) The permittee shall identify the following information in the annual permit evaluation report in accordance with the monitoring requirements for visible emissions in d)(6) above:
 - a. all days during which any visible particulate emissions were observed from the stacks serving this emissions unit (Stacks S10 and S70); and
 - b. any corrective actions taken to eliminate the visible particulate emissions.
- (3) The permittee shall identify the following information in the annual permit evaluation report in accordance with the monitoring requirements for visible emissions in d)(7) above:
 - a. all days during which any visible fugitive particulate emissions were observed from the egress points (i.e. building windows, doors, roof monitors, etc.) serving this emissions unit; and
 - b. any corrective actions taken to eliminate the visible fugitive particulate emissions.
- (4) The permittee shall submit annual reports which specify the total PE, PM₁₀ and VOC emissions exhausted from Stack S10 and the total PE, PM₁₀ and VOC emissions exhausted from Stack S70 for the previous calendar year. This report shall be submitted by April 15 of each year. This requirement may be satisfied by including and identifying the specific emissions data from these emissions units in the annual Fee Emission Report.
- (5) The permittee shall submit annual reports that describe any changes to this emissions unit which affect the air toxic modeling. If no changes were made during the year, then a report shall be submitted stating that no changes were made. This report is due by January 31 of each year and shall cover the previous calendar year.
- (6) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall

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

f) Testing Requirements

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

a. Emissions Limitation

Emissions exhausted from Stack S10 serving this emissions unit shall not exceed:

2.6 lbs/hr of PE and PM₁₀; and

5.3 lbs/hr of VOC.

Applicable Compliance Method

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

b. Emissions Limitation

Emissions exhausted from Stack S10 serving this emissions unit shall not exceed:

11.6 tons of PE and PM₁₀ per rolling 12-month period; and

23.1 tons of VOC per rolling 12-month period.

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements in d)(8) and shall be calculated by multiplying the hourly emission rate by the annual operating hours and dividing by 2,000 pounds/ton.

c. Emissions Limitation

Emissions exhausted from Stack S10 serving this emissions unit shall not exceed:

3.34 tons of single HAP per rolling 12-month period; and

8.33 tons of combined HAPs per rolling 12-month period.

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements in d)(8) and shall be calculated by multiplying the hourly emission rate for each individual

HAP by the annual operating hours and dividing by 2,000 pounds/ton. The hourly emissions rate of each individual HAP shall be determined through performance testing as described in the requirements for emissions units B001 and B002.

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

d. Emissions Limitation

Visible PE from Stack S10 serving this emissions unit shall not exceed 10% opacity as a six-minute average.

Applicable Compliance Method

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

e. Emission Limitation

Emissions exhausted from Stack S70 shall not exceed:

0.005 grain of PE per dry standard cubic foot of exhaust gases (gr/dscf);

0.74 lbs/hr of PE and PM₁₀; and

2.40 lbs/hr of VOC

Applicable Compliance Method

Compliance shall be determined through the performance testing as described in f)(2). Compliance with the allowable lb PM₁₀/hr limitation is assumed with compliance of the lb PE/hr limitation.

f. Emissions Limitation

Visible particulate emissions from Stack S70 shall not exceed 5% opacity as a six-minute average.

Applicable Compliance Method

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

g. Emissions Limitation

Fugitive PE shall not exceed 0.19 lb/hr.

Applicable Compliance Method

Compliance shall be calculated using AP-42 Table 9.9.1-1 (March 2003) for the fugitive grain handling emissions, AP-42 Table 9.9.1-2 (March 2003) for the fugitive dried distillers grain (DDGS) stockpile loading handling emissions and inputs representing the Potential To Emit (PTE), as follows:

$$\text{Emissions} = (\text{grain throughput}) * (\text{handling emission factor} + \text{DDGS emission factor}) * (1 - \text{enclosure control efficiency})$$

$$\text{Emissions} = (48 \text{ tons/hr}) * (0.061 \text{ lb/ton grain} + 0.017 \text{ lb/ton grain}) * (1 - 95\%)$$

$$\text{Emissions} = 0.19 \text{ lb/hr}$$

h. Emissions Limitation

Fugitive PE shall not exceed 0.82 TPY.

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements in d)(8) and shall be calculated using AP-42 Table 9.9.1-1 (March 2003) for the fugitive grain handling emissions and AP-42 Table 9.9.1-2 (March 2003) for the fugitive DDGS stockpile loading handling emissions, as follows:

$$\text{Emissions} = (\text{DDGS throughput}) * (\text{handling emission factor} + \text{DDGS emission factor}) * (1 - \text{enclosure control efficiency}) / (2000 \text{ lbs/ton})$$

$$\text{Emissions} = (\text{DDGS throughput in tons per year}) * (0.061 \text{ lb/ton grain} + 0.017 \text{ lb/ton grain}) * (1 - 95\%) / (2000 \text{ lbs/ton})$$

i. Emissions Limitation

Fugitive PM₁₀ emissions shall not exceed 0.088 lb/hr.

Applicable Compliance Method

Compliance shall be calculated using AP-42 Table 9.9.1-1 (March 2003) for the fugitive grain handling emissions, AP-42 Table 9.9.1-2 (March 2003) for the fugitive DDGS stockpile loading handling emissions and inputs representing the Potential To Emit (PTE), as follows:

$$\text{Emissions} = (\text{grain throughput}) * (\text{handling emission factor} + \text{DDGS emission factor}) * (1 - \text{enclosure control efficiency})$$

$$\text{Emissions} = (48 \text{ tons/hr}) * (0.034 \text{ lb/ton grain} + 0.0025 \text{ lb/ton grain}) * (1 - 95\%)$$

$$\text{Emissions} = 0.088 \text{ lb/hr}$$

j. Emissions Limitation

Fugitive PM₁₀ emissions shall not exceed 0.38 TPY.

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements in d)(8) and shall be calculated using AP-42 Table 9.9.1-1 (March 2003) for the fugitive grain handling emissions and AP-42 Table 9.9.1-2 (March 2003) for the fugitive DDGS stockpile loading handling emissions, as follows:

Emissions = (DDGS throughput) * (handling emission factor + DDGS emission factor) * (1 - enclosure control efficiency) / (2000 lbs/ton)

Emissions = (DDGS throughput in tons per year) * (0.034 lb/ton grain + 0.0025 lb/ton grain) * (1 - 95%) / (2000 lbs/ton)

k. Emission Limitation

Visible PE of fugitive dust shall not exceed 5% opacity as a three-minute average.

Applicable Compliance Method

If required, compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(3).

l. Emission Limitation

Emissions exhausted through Stack S70 after control shall not exceed 3.23 tons of PE and PM₁₀ per rolling 12-month period.

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements in d)(8) and shall be calculated using the baghouse exhaust grain loading from Stack S70, as follows:

Stack S70 Emissions = (exhaust PE concentration) * (exhaust flow rate) * (60 min/hr) * (annual operating hours) / (7000 gr/lb) / (2000 lbs/ton)

Stack S70 Emissions = (PE in gr/dscf from most recent emissions test) * (17,208 dscf/min) * (60 min/hr) * (annual operating hours) / (7000 gr/lb) / (2000 lbs/ton)

m. Emission Limitation

VOC emissions from Stack S70 shall not exceed 10.51 tons per rolling 12-month period.

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements in d)(8) and shall be calculated by multiplying the hourly emission rate by the annual operating hours and dividing by 2,000 pounds/ton.

- (2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
- a. The emission testing shall be conducted between the months of May and September calendar year 2013.
 - b. The emission testing shall be conducted to:
 - i. demonstrate compliance with the outlet concentration of 0.005 gr PE/dscf for Stack S70;
 - ii. demonstrate compliance with the allowable emissions rate for PE of 0.74 lb/hr for Stack S70; and
 - iii. demonstrate compliance with the allowable emissions rate for VOC of 2.40 lb/hr for Stack S70

Note, for the emissions exhausted from Stack S10, compliance shall be demonstrated through performance testing as described in the requirements for emissions units B001 and B002.

- c. The following test methods shall be employed to demonstrate compliance with the above emissions limitations:
 - i. Methods 1 through 4 from 40 CFR Part 60, Appendix A for velocity traverses, velocity and volumetric flow rates, gas analysis, and moisture content;
 - ii. Method 5 of 40 CFR Part 60, Appendix A for filterable PE; and
 - iii. Methods 18 or 320 from 40 CFR Part 60, Appendix A for total VOC (including, but not limited to, acetaldehyde, acetic acid, ethanol, formaldehyde, formic acid, 2-furaldehyde, methanol and acrolein*)

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

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

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

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- e. Not later than 60 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
- f. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

g) Miscellaneous Requirements

- (1) None.

3. Emissions Unit Group -Cook, Yeast, Distill & Dehydrate: P005,P007,

EU ID	Operations, Property and/or Equipment Description
P005	Mash and Yeast Operations Controlled with Recuperative Thermal Oxidizers
P007	Distillation and Dehydration Controlled with Recuperative Thermal Oxidizers

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - a. b)(1)c, d)(5), d)(6) and e)(3).
 - (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - a. b)(1)d, c)(1), d)(4), e)(1), e)(2), f)(1)b and f)(1)c.
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Emissions exhausted from Stack S10 serving this emissions unit shall not exceed 5.3 lbs/hr of volatile organic compounds (VOC). The requirements of this rule also include compliance with the requirements of OAC rules 3745-21-09(DD), 3745-31-05(D) and 40 CFR Part 60, Subpart VV.
b.	OAC rule 3745-21-09(DD) and 40 CFR Part 60, Subpart VV	See the requirements for emissions unit P801.
c.	ORC 3704.03(F) and OAC rule 3745-114-01	See d)(5), d)(6) and e)(3).
d.	OAC rule 3745-31-05(D) (synthetic minor to avoid TV)	Emissions exhausted from Stack S10 serving this emissions unit shall not exceed:

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		23.1 tons of VOC per rolling 12-month period; 3.34 tons of single HAP per rolling 12-month period; and 8.33 tons of combined HAPs per rolling 12-month period.

(2) Additional Terms and Conditions

- a. Emissions from B001, B002, P005, P007, P008, P009, P010, P011, P013 (except emissions vented to the flare Stack S60) and P902 (except emissions vented to Stack S70) are vented to a common stack identified as Stack S10.
- b. The rolling 12-month allowable emission rates are based on the annual production of 132,000,000 gallons of denatured ethanol.
- c. This emissions unit is permitted at its potential to emit, as defined in OAC rule 3745-31-01, for all pollutants.
- d. Best available technology (BAT) control requirements for this emissions unit has been determined to be the following:
 - i. implementation of a fugitive leak detection and repair program (LDAR) for all the miscellaneous process equipment associated with this emissions unit;
 - ii. the use of the natural gas-fired thermal oxidizers to control VOC at 98%; and
 - iii. maintain enclosures and vent all the emissions to the thermal oxidizers to ensure compliance.

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

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

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- f. Emissions unit P005 consists of a cook water tank (negligible emissions), slurry blender/mixer (not vented but connected to the slurry tanks which vent to the thermal oxidizer, TO), two slurry tanks (vented to TO), two cook tubes (not vented), flash tank (not vented), two liquefaction tanks (negligible emissions), two yeast tanks (vented to TO), CIP screen (vented to TO), acid wash tank (vented to TO) and other ancillary equipment and tanks.
 - g. Emissions unit P007 consists of a beer column (not vented), side stripper (not vented), rectifier column (not vented), 190 proof condenser (not vented), reflux tank (not vented), regen tank (vented to TO), molecular sieve (not vented), eight evaporators (not vented), six centrifuges (vented to TO), two centrate tanks (vented to TO), syrup tank (negligible emissions), thin stillage tank (negligible emissions), whole stillage tank (negligible emissions) and other ancillary equipment and tanks.
- c) Operational Restrictions
- (1) The annual amount of undenatured ethanol produced from this emissions unit shall not exceed 125,710,000 gallons, based upon a rolling, 12-month summation of the undenatured ethanol production.
- d) Monitoring and/or Recordkeeping Requirements
- (1) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable average combustion temperature within the thermal oxidizer, for each 3-hour block of time when the emissions unit controlled by the thermal oxidizer is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit was in compliance.

A "3-hour block of time" is defined as a successive, non-overlapping 3-hour block of time.
 - (2) The permittee shall properly install, operate, and maintain a continuous temperature monitor and recorder that measures and records the combustion temperature within the thermal oxidizer when the emissions unit is in operation, including periods of startup and shutdown. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within ± 1 percent of the temperature being measured or ± 5 degrees Fahrenheit, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manuals, with any modifications deemed necessary by the permittee. The permittee shall collect and record the following information each day the emissions unit is in operation:
 - a. each 3-hour block of time [as defined in d)(1)], when the emissions unit controlled by the thermal oxidizer was in operation, during which the average combustion temperature within the thermal oxidizer was more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit was in compliance; and

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

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

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

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

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

- a. a description of the corrective action;
- b. the date corrective action was completed;
- c. the date and time the deviation ended;
- d. the total period of time (in minutes) during which there was a deviation;
- e. the temperature readings immediately after the corrective action was implemented; and
- f. the name(s) of the personnel who performed the work.

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

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

relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

- (4) The permittee shall maintain monthly records of the following information:
- a. the operating hours for each month;
 - b. the undenatured ethanol production rate for each month, in gallons;
 - c. the VOC, single HAP and combined HAP emissions exhausted from Stack S10, in tons;
 - d. the rolling, 12-month summation of the undenatured ethanol production, in gallons; and
 - e. the rolling, 12-month summation of VOC, single HAP and combined HAP emissions exhausted from Stack S10, in tons.
- (5) The permit to install and operate (PTIO) for this emissions unit was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the PTIO application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied to this emissions unit for each toxic pollutant, using data from the PTIO application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Acetaldehyde

TLV (mg/m^3): 33.20

Maximum Hourly Emission Rate (lbs/hr): 0.40

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

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

Pollutant: Formaldehyde

TLV (mg/m^3): 0.272

Maximum Hourly Emission Rate (lbs/hr): 0.48

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

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

- (6) The above described evaluation determined that the maximum ground level concentration for the new or modified source was less than 80% of the MAGLC. Per ORC 3704.03(F)(4)(b), the owner or operator shall submit an annual report that describes any changes to the emissions unit that affect the air toxic modeling. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:
- a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify:
- a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
 - i. each 3-hour block of time [as defined in d)(1)] (start time and date, and end time and date) when the average combustion temperature within the thermal oxidizer was outside of the acceptable range;
 - ii. any period of time (start time and date, and end time and date) when the emissions unit was in operation and the process emissions were not vented to the thermal oxidizer;
 - iii. all exceedances of the rolling, 12-month limitation of the undenatured ethanol production; and
 - iv. all exceedances of the rolling, 12-month VOC, single HAP and combined HAP emissions limitation for emissions exhausted from Stack S10.
 - b. the probable cause of each deviation (excursion);

- c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
- d. the magnitude and duration of each deviation (excursion).

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

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

- (2) The permittee shall submit annual reports which specify the total VOC, single HAP and combined HAP emissions exhausted from Stack S10 for the previous calendar year. This report shall be submitted by April 15 of each year. This requirement may be satisfied by including and identifying the specific emissions data from these emissions units in the annual Fee Emission Report.
- (3) The permittee shall submit annual reports that describe any changes to this emissions unit which affect the air toxic modeling. If no changes were made during the year, then a report shall be submitted stating that no changes were made. This report is due by January 31 of each year and shall cover the previous calendar year.
- (4) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.

f) **Testing Requirements**

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

- a. Emissions Limitation

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

- Applicable Compliance Method

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

b. Emissions Limitation

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

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements in d)(4) and shall be calculated by multiplying the hourly emission rate by the annual operating hours and dividing by 2,000 pounds/ton.

c. Emissions Limitation

Emissions exhausted from Stack S10 serving this emissions unit shall not exceed:

3.34 tons of single HAP per rolling 12-month period; and

8.33 tons of combined HAPs per rolling 12-month period.

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements in d)(5) and shall be calculated by multiplying the hourly emission rate for each individual HAP by the annual operating hours and dividing by 2,000 pounds/ton. The hourly emissions rate of each individual HAP shall be determined through performance testing as described in the requirements for emissions units B001 and B002.

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

g) Miscellaneous Requirements

(1) None.

4. Emissions Unit Group -DDGS Dryers: P008,P009,P010,P011,

EU ID	Operations, Property and/or Equipment Description
P008	45 mmBtu/hr DDGS Dryer No. 1 controlled with a Recuperative Thermal Oxidizer
P009	45 mmBtu/hr DDGS Dryer No. 2 controlled with a Recuperative Thermal Oxidizer
P010	45 mmBtu/hr DDGS Dryer No. 3 controlled with a Recuperative Thermal Oxidizer
P011	45 mmBtu/hr DDGS Dryer No. 4 controlled with a Recuperative Thermal Oxidizer

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

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

a. b)(1)d, d)(9), d)(10) and e)(6).

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

a. b)(1)e, c)(2), d)(8), e)(2), e)(5), f)(1)c, f)(1)d and f)(1)e.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Emissions exhausted from Stack S10 serving this emissions unit shall not exceed: 20.0 lbs/hr of carbon monoxide (CO); 21.2 lbs/hr of nitrogen oxides (NO _x) , as a 30-day rolling average; 21.9 lbs/hr of sulfur dioxide (SO ₂); 2.6 lbs/hr of particulate emissions (PE) and emissions of particulate matter less than 10 microns in diameter (PM ₁₀); and

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		5.3 lbs/hr of volatile organic compounds (VOC).
a.	OAC rule 3745-31-05(A)(3)	<p>Visible particulate emissions from the stack serving this emissions unit shall not exceed 10% opacity as a six-minute average.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D).</p>
b.	OAC rule 3745-17-07(A)(1) and OAC rule 3745-17-10(B)(1)	The emission limitations specified by these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
c.	OAC rule 3745-18-06	See b)(2)c.
d.	ORC 3704.03(F) and OAC rule 3745-114-01	See d)(9), d)(10) and e)(6).
e.	OAC rule 3745-31-05(D) (synthetic minor to avoid TV)	<p>Emissions exhausted from Stack S10 serving this emissions unit shall not exceed:</p> <p>87.6 tons of CO per rolling 12-month period;</p> <p>92.9 tons of NO_x per rolling 12-month period;</p> <p>95.7 tons of SO₂ per rolling 12-month period;</p> <p>11.6 tons of PE and PM₁₀ per rolling 12-month period;</p> <p>23.1 tons of VOC per rolling 12-month period;</p> <p>3.34 tons of single HAP per rolling 12-month period; and</p> <p>8.33 tons of combined HAPs per rolling 12-month period.</p>

(2) Additional Terms and Conditions

- a. Emissions from B001, B002, P005, P007, P008, P009, P010, P011, P013 (except emissions vented to the flare Stack S60) and P902 (except emissions vented to Stack S70) are vented to a common stack identified as Stack S10.
- b. The rolling 12-month allowable emission rates are based on the annual production of 132,000,000 gallons of denatured ethanol.
- c. This emissions unit is exempt from the requirements of OAC rule 3745-18-06 in accordance with OAC rule 3745-18-06(A).
- d. This emissions unit is permitted at its potential to emit, as defined in OAC rule 3745-31-01, for all pollutants.
- e. Best available technology (BAT) control requirements for this emissions unit has been determined to be the following:
 - i. the use of the natural gas-fired thermal oxidizers to control VOC at 98%; and
 - ii. maintain enclosures and vent all the emissions to the thermal oxidizers to ensure compliance.

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

- f. The permittee shall maintain a written quality assurance/quality control plan for the continuous NO_x monitoring system, designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standards (lbs/hr). The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.

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

- g. The continuous emission monitoring system consists of all the equipment used to acquire data to provide a record of emissions and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The continuous NO_x monitoring system utilized for these emissions units P008, P009, P010 and P011 is the same as that used for emissions units B001 and B002.

c) Operational Restrictions

- (1) The permittee shall burn only natural gas or biomethanator off-gases from emissions unit P013 in this emissions unit.
- (2) The annual amount of dried distillers grain solubles (DDGS) produced from this emissions unit shall not exceed 420,225 tons, based upon a rolling, 12-month summation of the DDGS production.
- (3) Prior to using steam injection in the dryers, the permittee shall conduct compliant emissions testing, while using steam injection, as specified in the requirements for emissions units B001 and B002.

d) Monitoring and/or Recordkeeping Requirements

- (1) For each day during which the permittee burns a fuel other than natural gas or biomethanator off-gases from emissions unit P013, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
- (2) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable average combustion temperature within the thermal oxidizer, for each 3-hour block of time when the emissions unit controlled by the thermal oxidizer is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit was in compliance.

A "3-hour block of time" is defined as a successive, non-overlapping 3-hour block of time.

- (3) The permittee shall properly install, operate, and maintain a continuous temperature monitor and recorder that measures and records the combustion temperature within the thermal oxidizer when the emissions unit is in operation, including periods of startup and shutdown. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within ± 1 percent of the temperature being measured or ± 5 degrees Fahrenheit, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manuals, with any modifications deemed necessary by the permittee. The permittee shall collect and record the following information each day the emissions unit is in operation:
 - a. each 3-hour block of time [as defined in d)(2)], when the emissions unit controlled by the thermal oxidizer was in operation, during which the average combustion temperature within the thermal oxidizer was more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit was in compliance; and
 - b. a log (date and total time) of the downtime or bypass of the capture (collection) system and thermal oxidizer, and/or downtime of the monitoring equipment, when the associated emissions unit was in operation.

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

- (4) Whenever the monitored average combustion temperature within the thermal oxidizer deviates from the limit established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:
- a. the date and time the deviation began;
 - b. the magnitude of the deviation at that time;
 - c. the date the investigation was conducted;
 - d. the name(s) of the personnel who conducted the investigation; and
 - e. the findings and recommendations.

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

- a. a description of the corrective action;
- b. the date corrective action was completed;
- c. the date and time the deviation ended;
- d. the total period of time (in minutes) during which there was a deviation;
- e. the temperature readings immediately after the corrective action was implemented; and
- f. the name(s) of the personnel who performed the work.

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

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

- (5) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
- a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.

- (6) The permittee shall maintain on site, the document(s) of certification received from the U.S. EPA or the Ohio EPA's Central Office documenting that the continuous NO_x monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specifications 2 and 6. The letter(s)/document(s) of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

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

- (7) The permittee shall operate and maintain equipment to continuously monitor and record NO_x emissions from this emissions unit in units of the applicable standards (lbs/hr). The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.

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

- a. emissions of NO_x in parts per million on an instantaneous (one-minute) basis;
- b. emissions of NO_x in pounds per hour and in all units of the applicable standards (lbs/hr) in the appropriate averaging periods (30-day rolling average);
- c. results of quarterly cylinder gas audits;
- d. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;
- e. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);
- f. the total NO_x emissions for the month;

- g. hours of operation of the emissions unit and the continuous NO_x monitoring system;
 - h. the date, time, and hours of operation of the emissions unit without the continuous NO_x monitoring system;
 - i. the date, time, and hours of operation of the emissions unit during any malfunction of the continuous NO_x monitoring system; as well as,
 - j. the reason (if known) and the corrective actions taken (if any) for each such event in d)(7)h and d)(7)i.
- (8) The permittee shall maintain monthly records of the following information:
- a. the operating hours for each month;
 - b. the DDGS production rate for each month, in tons;
 - c. the CO, NO_x, SO₂, PE, PM₁₀, VOC, single HAP and combined HAP emissions exhausted from Stack S10, in tons;
 - d. the rolling, 12-month summation of the DDGS production, in tons; and
 - e. the rolling, 12-month summation of CO, NO_x, SO₂, PE, PM₁₀, VOC, single HAP and combined HAP emissions exhausted from Stack S10, in tons.
- (9) The permit to install and operate (PTIO) for this emissions unit was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the PTIO application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied to this emissions unit for each toxic pollutant, using data from the PTIO application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Acetaldehyde

TLV (mg/m³): 33.20

Maximum Hourly Emission Rate (lbs/hr): 0.40

Predicted 1-Hour Maximum Ground-Level Concentration (µg/m³): 61.20 (entire facility)

MAGLC (µg/m³): 790

Pollutant: Formaldehyde

TLV (mg/m³): 0.272

Maximum Hourly Emission Rate (lbs/hr): 0.48

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

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

- (10) The above described evaluation determined that the maximum ground level concentration for the new or modified source was less than 80% of the MAGLC. Per ORC 3704.03(F)(4)(b), the owner or operator shall submit an annual report that describes any changes to the emissions unit that affect the air toxic modeling. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:
- a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
- e) Reporting Requirements
- (1) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas or biomethanator off-gases from emissions unit P013 was burned in the emissions unit. These reports shall be submitted to the Regional Air Pollution Control Agency within 30 days after the deviation occurs.
 - (2) The permittee shall submit quarterly deviation (excursion) reports that identify:
 - a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
 - i. each 3-hour block of time [as defined in d)(2)] (start time and date, and end time and date) when the average combustion temperature within the thermal oxidizer was outside of the acceptable range;
 - ii. any period of time (start time and date, and end time and date) when the emissions unit was in operation and the process emissions were not vented to the thermal oxidizer;

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- iii. all exceedances of the rolling, 12-month limitation of the DDGS production; and
 - iv. all exceedances of the rolling, 12-month CO, NO_x, SO₂, PE, PM₁₀, VOC, single HAP and combined HAP emissions limitation for emissions exhausted from Stack S10.
- b. the probable cause of each deviation (excursion);
 - c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
 - d. the magnitude and duration of each deviation (excursion).

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

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

- (3) The permittee shall identify the following information in the annual permit evaluation report in accordance with the monitoring requirements for visible emissions in d)(5) above:
 - a. all days during which any visible particulate emissions were observed from the stack serving this emissions unit; and
 - b. any corrective actions taken to eliminate the visible particulate emissions.
- (4) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous NO_x monitoring system:
 - a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency, documenting all instances of NO_x emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, OAC Chapters 3745-14 and 3745-23, and any other applicable rules or regulations (i.e., lbs/hr as a 30-day rolling average). The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standards (i.e., lbs/hr as a 30-day rolling average).
 - b. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall include the following:

- i. the facility name and address;
- ii. the manufacturer and model number of the continuous NO_x and other associated monitors;
- iii. a description of any change in the equipment that comprises the continuous emission monitoring system (CEMS), including any change to the hardware, changes to the software that may affect CEMS readings, and/or changes in the location of the CEMS sample probe;
- iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;
- v. the total NO_x emissions for the calendar quarter (tons);
- vi. the total operating time (hours) of the emissions unit;
- vii. the total operating time of the continuous NO_x monitoring system while the emissions unit was in operation;
- viii. results and dates of quarterly cylinder gas audits;
- ix. unless previously submitted, results and dates of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));
- x. unless previously submitted, the results of any relative accuracy test audit showing the continuous NO_x monitor out-of-control and the compliant results following any corrective actions;
- xi. the date, time, and duration of any/each malfunction** of the continuous NO_x monitoring system, emissions unit, and/or control equipment;
- xii. the date, time, and duration of any downtime** of the continuous NO_x monitoring system and/or control equipment while the emissions unit was in operation; and
- xiii. the reason (if known) and the corrective actions taken (if any) for each event in e)(4)b.xi and e)(4)b.xii.

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

* where no excess emissions have occurred or the continuous monitoring system(s) has/have not been inoperative, repaired, or adjusted during the calendar quarter, such information shall be documented in the EER quarterly report

** each downtime and malfunction event shall be reported regardless if there is an exceedance of any applicable limit

- (5) The permittee shall submit annual reports which specify the total CO, NO_x, SO₂, PE, PM₁₀, VOC, single HAP and combined HAP emissions exhausted from Stack S10 for the previous calendar year. This report shall be submitted by April 15 of each year. This requirement may be satisfied by including and identifying the specific emissions data from these emissions units in the annual Fee Emission Report.
- (6) The permittee shall submit annual reports that describe any changes to this emissions unit which affect the air toxic modeling. If no changes were made during the year, then a report shall be submitted stating that no changes were made. This report is due by January 31 of each year and shall cover the previous calendar year.
- (7) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.

f) Testing Requirements

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

- a. Emissions Limitation

Emissions exhausted from Stack S10 serving this emissions unit shall not exceed:

20.0 lbs/hr of CO;

21.9 lbs/hr of SO₂;

2.6 lbs/hr of PE and PM₁₀; and

5.3 lbs/hr of VOC

Applicable Compliance Method

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

- b. Emissions Limitation

Emissions exhausted from Stack S10 serving this emissions unit shall not exceed 21.2 lbs/hr of NO_x, as a 30-day rolling average.

Applicable Compliance Method

Compliance shall be demonstrated through the data collected as required in d)(7) and through demonstration of compliance with the quality assurance/quality

control plan, which shall meet the testing and recertification requirements of 40 CFR Part 60.

c. Emissions Limitation

Emissions exhausted from Stack S10 serving this emissions unit shall not exceed:

87.6 tons of CO per rolling 12-month period;

95.7 tons of SO₂ per rolling 12-month period;

11.6 tons of PE and PM₁₀ per rolling 12-month period;

23.1 tons of VOC per rolling 12-month period;

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements in d)(8) and shall be calculated by multiplying the hourly emission rate by the annual operating hours and dividing by 2,000 pounds/ton.

d. Emissions Limitation

Emissions exhausted from Stack S10 serving this emissions unit shall not exceed 92.9 tons of NO_x per rolling 12-month period.

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements in d)(8) and shall be based on the data collected as required in d)(7) and through demonstration of compliance with the quality assurance/quality control plan, which shall meet the testing and recertification requirements of 40 CFR Part 60.

e. Emissions Limitation

Emissions exhausted from Stack S10 serving this emissions unit shall not exceed:

3.34 tons per rolling 12-month period for any single HAP; and

8.33 tons per rolling 12-month period for combined HAPs.

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements in d)(8) and shall be calculated by multiplying the hourly emission rate for each individual HAP by the annual operating hours and dividing by 2,000 pounds/ton. The hourly emissions rate of each individual HAP shall be determined through performance testing as described in the requirements for emissions units B001 and B002.

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

f. Emissions Limitation

Visible PE from the stack serving this emissions unit shall not exceed 10% opacity, as a six-minute average.

Applicable Compliance Method

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

g) Miscellaneous Requirements

(1) None.

5. Emissions Unit Group -RTO/Waste Heat Recovery Boilers: B001,B002,

EU ID	Operations, Property and/or Equipment Description
B001	122 mmBtu/hr Natural Gas-fired Recuperative Thermal Oxidizer / Waste Heat Recovery Boiler
B002	122 mmBtu/hr Natural Gas-fired Recuperative Thermal Oxidizer / Waste Heat Recovery Boiler

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

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

a. b)(1)d, d)(9), d)(10) and e)(6).

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

a. b)(1)e, d)(8), e)(2), e)(5), f)(1)c, f)(1)d and f)(1)e.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Emissions exhausted from Stack S10 serving this emissions unit shall not exceed: 20.0 lbs/hr of carbon monoxide (CO); 21.2 lbs/hr of nitrogen oxides (NO _x), as a 30-day rolling average; 21.9 lbs/hr of sulfur dioxide (SO ₂); 2.6 lbs/hr of particulate emissions (PE) and emissions of particulate matter less than 10 microns in diameter (PM ₁₀); and

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	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		5.3 lbs/hr of volatile organic compounds (VOC).
a.	OAC rule 3745-31-05(A)(3)	<p>Visible particulate emissions from the stack serving this emissions unit shall not exceed 10% opacity as a six-minute average.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D).</p>
b.	OAC rule 3745-17-07(A)(1) and OAC rule 3745-17-10(B)(1)	The emission limitations specified by these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
c.	OAC rule 3745-18-06	See b)(2)c.
d.	ORC 3704.03(F) and OAC rule 3745-114-01	See d)(9), d)(10) and e)(6).
e.	OAC rule 3745-31-05(D) (synthetic minor to avoid TV)	<p>Emissions exhausted from Stack S10 serving this emissions unit shall not exceed:</p> <p>87.6 tons of CO per rolling 12-month period;</p> <p>92.9 tons of NO_x per rolling 12-month period;</p> <p>95.7 tons of SO₂ per rolling 12-month period;</p> <p>11.6 tons of PE and PM₁₀ per rolling 12-month period;</p> <p>23.1 tons of VOC per rolling 12-month period;</p> <p>3.34 tons of single HAP per rolling 12-month period; and</p>

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		8.33 tons of combined HAPs per rolling 12-month period.
f.	40 CFR 60 Subpart Db	NO _x emissions from this emissions unit shall not exceed 0.10 lb/mmBtu of actual heat input, as a 30-day rolling average, at all times, including periods of startup, shutdown and malfunction.

(2) Additional Terms and Conditions

- a. Emissions from B001, B002, P005, P007, P008, P009, P010, P011, P013 (except emissions vented to the flare Stack S60) and P902 (except emissions vented to Stack S70) are vented to a common stack identified as Stack S10.
- b. The rolling 12-month allowable emission rates are based on the annual production of 132,000,000 gallons of denatured ethanol.
- c. This emissions unit is exempt from the requirements of OAC rule 3745-18-06 in accordance with OAC rule 3745-18-06(A).
- d. This emissions unit is permitted at its potential to emit, as defined in OAC rule 3745-31-01, for all pollutants.
- e. Best available technology (BAT) control requirements for this emissions unit has been determined to be the following:
 - i. the use of low NO_x burners;
 - ii. operation of this unit with a VOC destruction efficiency of 98%; and
 - iii. firing only natural gas.

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

- f. The permittee shall maintain a written quality assurance/quality control plan for the continuous NO_x monitoring system, designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standards (lbs/mmBtu of actual heat input and lbs/hr). The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.

The plan shall include the requirement to conduct quarterly cylinder gas audits or relative accuracy audits as required in 40 CFR Part 60; and to conduct relative

accuracy test audits in units of the standard(s), in accordance with and at the frequencies required per 40 CFR Part 60.

- g. The continuous emission monitoring system consists of all the equipment used to acquire data to provide a record of emissions and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

c) Operational Restrictions

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

d) Monitoring and/or Recordkeeping Requirements

- (1) For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
- (2) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable average combustion temperature within the thermal oxidizer, for each 3-hour block of time when the emissions unit controlled by the thermal oxidizer is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit was in compliance.

A "3-hour block of time" is defined as a successive, non-overlapping 3-hour block of time.

- (3) The permittee shall properly install, operate, and maintain a continuous temperature monitor and recorder that measures and records the combustion temperature within the thermal oxidizer when the emissions unit is in operation, including periods of startup and shutdown. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within ± 1 percent of the temperature being measured or ± 5 degrees Fahrenheit, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manuals, with any modifications deemed necessary by the permittee. The permittee shall collect and record the following information each day the emissions unit is in operation:
 - a. each 3-hour block of time [as defined in d)(2)], when the emissions unit controlled by the thermal oxidizer was in operation, during which the average combustion temperature within the thermal oxidizer was more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit was in compliance; and
 - b. a log (date and total time) of the downtime or bypass of the capture (collection) system and thermal oxidizer, and/or downtime of the monitoring equipment, when the associated emissions unit was in operation.

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

- (4) Whenever the monitored average combustion temperature within the thermal oxidizer deviates from the limit established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:
- a. the date and time the deviation began;
 - b. the magnitude of the deviation at that time;
 - c. the date the investigation was conducted;
 - d. the name(s) of the personnel who conducted the investigation; and
 - e. the findings and recommendations.

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

- a. a description of the corrective action;
- b. the date corrective action was completed;
- c. the date and time the deviation ended;
- d. the total period of time (in minutes) during which there was a deviation;
- e. the temperature readings immediately after the corrective action was implemented; and
- f. the name(s) of the personnel who performed the work.

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

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

- (5) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
- a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.

- (6) The permittee shall maintain on site, the document(s) of certification received from the U.S. EPA or the Ohio EPA's Central Office documenting that the continuous NO_x monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specifications 2 and 6. The letter(s)/document(s) of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

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

- (7) The permittee shall operate and maintain equipment to continuously monitor and record NO_x emissions from this emissions unit in units of the applicable standards (lbs/mmBtu of actual heat input and lbs/hr). The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.

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

- a. emissions of NO_x in parts per million on an instantaneous (one-minute) basis;
- b. emissions of NO_x in pounds per hour and in all units of the applicable standards (lbs/mmBtu of actual heat input and lbs/hr) in the appropriate averaging periods (30-day rolling average);
- c. results of quarterly cylinder gas audits;
- d. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;
- e. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);

- f. the total NO_x emissions for the month;
- g. hours of operation of the emissions unit and the continuous NO_x monitoring system;
- h. the date, time, and hours of operation of the emissions unit without the continuous NO_x monitoring system;
- i. the date, time, and hours of operation of the emissions unit during any malfunction of the continuous NO_x monitoring system; as well as,
- j. the reason (if known) and the corrective actions taken (if any) for each such event in d)(7)h and d)(7)i.

Per a letter from George Czerniak dated March 25, 2009 regarding the request for use of Method 19 and for single CEMS unit (continuous NO_x monitoring system) at the Andersons Marathon LLC Ethanol Plant, Greenville, Ohio, to calculate the NO_x emissions rate in terms of lbs/mmBtu, the permittee shall combine the measured value for its NO_x emission rate in terms of ppmV, the exhaust gas flow rate, and the heat input rate for the fuels combusted in the waste heat recovery boiler/thermal oxidizer (i.e., B001 and B002). Fuel combusted in the DDGS Dryers (emissions units P008 through P011) shall not be included in this calculation. In addition, per 40 CFR 60.13(g), the permittee may use a single CEM for the purpose of meeting the continuous monitoring requirements for both B001 and B002.

- (8) The permittee shall maintain monthly records of the following information:
 - a. the operating hours for each month;
 - b. the CO, NO_x, SO₂, PE, PM₁₀, VOC, single HAP and combined HAP emissions exhausted from Stack S10, in tons; and
 - c. the rolling, 12-month summation of CO, NO_x, SO₂, PE, PM₁₀, VOC, single HAP and combined HAP emissions exhausted from Stack S10, in tons.
- (9) The permit to install and operate (PTIO) for this emissions unit was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the PTIO application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied to this emissions unit for each toxic pollutant, using data from the PTIO application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Acetaldehyde

TLV (mg/m³): 33.20

Maximum Hourly Emission Rate (lbs/hr): 0.40

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

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

Pollutant: Formaldehyde

TLV (mg/m^3): 0.272

Maximum Hourly Emission Rate (lbs/hr): 0.48

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

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

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

- a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

e) Reporting Requirements

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

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

- a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the

potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:

- i. each 3-hour block of time [as defined in d)(2)] (start time and date, and end time and date) when the average combustion temperature within the thermal oxidizer was outside of the acceptable range;
 - ii. any period of time (start time and date, and end time and date) when the emissions unit was in operation and the process emissions were not vented to the thermal oxidizer; and
 - iii. all exceedances of the rolling, 12-month CO, NO_x, SO₂, PE, PM₁₀, VOC, single HAP and combined HAP emissions limitation for emissions exhausted from Stack S10.
- b. the probable cause of each deviation (excursion);
 - c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
 - d. the magnitude and duration of each deviation (excursion).

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

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

- (3) The permittee shall identify the following information in the annual permit evaluation report in accordance with the monitoring requirements for visible emissions in d)(5) above:
 - a. all days during which any visible particulate emissions were observed from the stack serving this emissions unit; and
 - b. any corrective actions taken to eliminate the visible particulate emissions.
- (4) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous NO_x monitoring system:
 - a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency, documenting all instances of NO_x emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, OAC Chapters 3745-14 and 3745-23, and any other applicable rules or regulations (i.e., lbs/mmBtu of actual heat input as a 30-day rolling average and lbs/hr as a

30-day rolling average). The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standards (i.e., lbs/mmBtu of actual heat input as a 30-day rolling average and lbs/hr as a 30-day rolling average).

- b. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall include the following:
- i. the facility name and address;
 - ii. the manufacturer and model number of the continuous NO_x and other associated monitors;
 - iii. a description of any change in the equipment that comprises the continuous emission monitoring system (CEMS), including any change to the hardware, changes to the software that may affect CEMS readings, and/or changes in the location of the CEMS sample probe;
 - iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;
 - v. the total NO_x emissions for the calendar quarter (tons);
 - vi. the total operating time (hours) of the emissions unit;
 - vii. the total operating time of the continuous NO_x monitoring system while the emissions unit was in operation;
 - viii. results and dates of quarterly cylinder gas audits;
 - ix. unless previously submitted, results and dates of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));
 - x. unless previously submitted, the results of any relative accuracy test audit showing the continuous NO_x monitor out-of-control and the compliant results following any corrective actions;
 - xi. the date, time, and duration of any/each malfunction** of the continuous NO_x monitoring system, emissions unit, and/or control equipment;
 - xii. the date, time, and duration of any downtime** of the continuous NO_x monitoring system and/or control equipment while the emissions unit was in operation; and
 - xiii. the reason (if known) and the corrective actions taken (if any) for each event in e)(4)b.xi and e)(4)b.xii.

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

* where no excess emissions have occurred or the continuous monitoring system(s) has/have not been inoperative, repaired, or adjusted during the calendar quarter, such information shall be documented in the EER quarterly report

** each downtime and malfunction event shall be reported regardless if there is an exceedance of any applicable limit

- (5) The permittee shall submit annual reports which specify the total CO, NO_x, SO₂, PE, PM₁₀, VOC, single HAP and combined HAP emissions exhausted from Stack S10 for the previous calendar year. This report shall be submitted by April 15 of each year. This requirement may be satisfied by including and identifying the specific emissions data from these emissions units in the annual Fee Emission Report.
- (6) The permittee shall submit annual reports that describe any changes to this emissions unit which affect the air toxic modeling. If no changes were made during the year, then a report shall be submitted stating that no changes were made. This report is due by January 31 of each year and shall cover the previous calendar year.
- (7) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.

f) Testing Requirements

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

a. Emissions Limitation

Emissions exhausted from Stack S10 serving this emissions unit shall not exceed:

20.0 lbs/hr of CO;

21.9 lbs/hr of SO₂;

2.6 lbs/hr of PE and PM₁₀; and

5.3 lbs/hr of VOC

Applicable Compliance Method

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

b. Emissions Limitation

Emissions exhausted from Stack S10 serving this emissions unit shall not exceed 21.2 lbs/hr of NO_x, as a 30-day rolling average.

Applicable Compliance Method

Compliance shall be demonstrated through the data collected as required in d)(7) and through demonstration of compliance with the quality assurance/quality control plan, which shall meet the testing and recertification requirements of 40 CFR Part 60.

c. Emissions Limitation

Emissions exhausted from Stack S10 serving this emissions unit shall not exceed:

87.6 tons of CO per rolling 12-month period;

95.7 tons of SO₂ per rolling 12-month period;

11.6 tons of PE and PM₁₀ per rolling 12-month period;

23.1 tons of VOC per rolling 12-month period;

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements in d)(8) and shall be calculated by multiplying the hourly emission rate by the annual operating hours and dividing by 2,000 pounds/ton.

d. Emissions Limitation

Emissions exhausted from Stack S10 serving this emissions unit shall not exceed 92.9 tons of NO_x per rolling 12-month period.

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements in d)(8) and shall be based on the data collected as required in d)(7) and through demonstration of compliance with the quality assurance/quality control plan, which shall meet the testing and recertification requirements of 40 CFR Part 60.

e. Emissions Limitation

Emissions exhausted from Stack S10 serving this emissions unit shall not exceed:

3.34 tons per rolling 12-month period for any single HAP; and

8.33 tons per rolling 12-month period for combined HAPs.

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements in d)(8) and shall be calculated by multiplying the hourly emission rate for each individual HAP by the annual operating hours and dividing by 2,000 pounds/ton. The hourly emissions rate of each individual HAP shall be determined through performance testing as described in f)(2).

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

f. Emissions Limitation

Visible PE from the stack serving this emissions unit shall not exceed 10% opacity, as a six-minute average.

Applicable Compliance Method

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

g. Emissions Limitation

NO_x emissions from this emissions unit shall not exceed 0.10 lb/mmBtu of actual heat input, as a 30-day rolling average, at all times, including periods of startup, shutdown and malfunction.

Applicable Compliance Method

Compliance shall be demonstrated through the data collected as required in d)(7) and through demonstration of compliance with the quality assurance/quality control plan, which shall meet the testing and recertification requirements of 40 CFR Part 60.

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

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

b. The emission testing shall be conducted to:

i. demonstrate compliance with the following allowable emissions rates for combined emissions from B001, B002, P005, P007, P008, P009, P010, P011, P013 (except emissions vented to the flare) and P902 (except emissions vented to Stack S70):

(a) 20.0 lbs/hr of CO;

(b) 21.9 lbs/hr of SO₂;

- (c) 2.6 lbs/hr of PE and PM₁₀;
 - (d) 5.3 lbs/hr of VOC;
 - (e) 3.34 tons per rolling 12-month period for any single HAP; and
 - (f) 8.33 tons per rolling 12-month period for combined HAPs.
- ii. verify the control efficiency (98% for VOC) of the thermal oxidizer.
- c. The following test methods shall be employed to demonstrate compliance with the above emissions limitations:
 - i. Methods 1 through 4 from 40 CFR Part 60, Appendix A for velocity traverses, velocity and volumetric flow rates, gas analysis, and moisture content;
 - ii. Method 5 of 40 CFR Part 60, Appendix A for filterable PE;
 - iii. Method 202 as set forth in the most recent update of 40 CFR Part 51 Appendix M for PM₁₀ and condensable PE;
 - iv. Method 6c or 320 from 40 CFR Part 60, Appendix A for SO₂;
 - v. Method 10 or 320 from 40 CFR Part 60, Appendix A for CO;
 - vi. Methods 18 or 320 from 40 CFR Part 60, Appendix A for total VOC and total HAPs (including, but not limited to, acetaldehyde, acetic acid, ethanol, formaldehyde, formic acid, 2-furaldehyde, methanol, acrolein and hexane*); and
 - vii. Method 25 or Method 25A from 40 CFR Part 60, Appendix A for VOC control efficiency.

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

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

- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
- e. Not later than 60 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval

Final Permit-to-Install and Operate

Andersons Marathon Ethanol LLC

Permit Number: P0108197

Facility ID: 0819750245

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prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

- f. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

g) Miscellaneous Requirements

- (1) None.