



State of Ohio Environmental Protection Agency

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MAILING ADDRESS:

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P.O. Box 1049
Columbus, OH 43216-1049

8/5/2009

WENDEL DREVE
FARMERS ETHANOL LLC
9665 Young America Rd
Adamsville, OH 43802

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE
Facility ID: 0634000101
Permit Number: P0104183
Permit Type: Initial Installation
County: Harrison

Certified Mail

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR
No	CEMS
No	MACT
Yes	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED

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.

Ohio EPA maintains a document entitled "Frequently Asked Questions about the PTIO". The document can be downloaded from the DAPC Web page, www.epa.state.oh.us/dapc, from the "Permits" link. This document contains additional information related to your permit, such as what activities are covered under the PTIO, who has enforcement authority over the permit and Ohio EPA's authorization to inspect your facility and records. Please contact the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469 if you need assistance.

The issuance of this PTIO is a final action of the Director and may be appealed to the Environmental Review Appeals Commission ("ERAC") under Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and describe the action complained of and the grounds for the appeal. The appeal must be filed with the ERAC within thirty (30) days after notice of the Director's action. A filing fee of \$70.00 must be submitted to the ERAC with the appeal, although the ERAC, has discretion to reduce the amount of the filing fee if you can demonstrate (by affidavit) that payment of the full amount of the fee would cause extreme hardship. If you file an appeal of this action, you must notify Ohio EPA of the filing of the appeal (by providing a copy to the Director) within three (3) days of filing your appeal with the ERAC. Ohio EPA requests that a copy of the appeal also be provided to the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the ERAC at the following address:

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

If you have any questions regarding this permit, please contact the Ohio EPA DAPC, Southeast District Office. This permit has been posted to the Division of Air Pollution Control (DAPC) Web page www.epa.state.oh.us/dapc.

Sincerely,

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

Cc: Ohio EPA-SEDO

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director



**State of Ohio Environmental Protection Agency
Division of Air Pollution Control**

FINAL

**Air Pollution Permit-to-Install and Operate
for
FARMERS ETHANOL LLC**

Facility ID:	0634000101
Permit Number:	P0104183
Permit Type:	Initial Installation
Issued:	8/5/2009
Effective:	8/5/2009
Expiration:	8/5/2014



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Air Pollution Permit-to-Install and Operate
for
FARMERS ETHANOL LLC

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Final Permit-to-Install and Operate

Permit Number: P0104183

Facility ID: 0634000101

Effective Date: 8/5/2009

Authorization

Facility ID: 0634000101

Application Number(s): A0036452, A0036813

Permit Number: P0104183

Permit Description: Install 3 Co-gen Units(CU): each CU consisting of two 21.9 MMBtu/hr turbines and a 14.0 MMBtu/hr Duct Burner and a heat recovery steam generator. The CU's will replace emission units B001, B002 (50 MMBtu/hr NG fired boilers) and P011, P012, P013 (3.6 MMBtu/hr Bio-gas fired generators) issued in PTI06-07332. The facility total emissions will remain below TV thresholds.

Permit Type: Initial Installation

Permit Fee: \$3,600.00

Issue Date: 8/5/2009

Effective Date: 8/5/2009

Expiration Date: 8/5/2014

Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

FARMERS ETHANOL LLC
TWP RD 93
CADIZ, OH 43907

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:

Ohio EPA DAPC, Southeast District Office
2195 Front Street
Logan, OH 43138
(740)385-8501

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

Chris Korleski
Director



Authorization (continued)

Permit Number: P0104183
 Permit Description: Install 3 Co-gen Units(CU): each CU consisting of two 21.9 MMBtu/hr turbines and a 14.0 MMBtu/hr Duct Burner and a heat recovery steam generator. The CU's will replace emission units B001, B002 (50 MMBtu/hr NG fired boilers) and P011, P012, P013 (3.6 MMBtu/hr Bio-gas fired generators) issued in PTI06-07332. The facility total emissions will remain below TV thresholds.

Permits for the following emissions unit(s) or groups of emissions units are in this document as indicated below:

Group Name: Six 21.9 MMBtu/hr Co-gen Turbines

Emissions Unit ID:	P014
Company Equipment ID:	P19A
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P015
Company Equipment ID:	P19B
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P016
Company Equipment ID:	P21A
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P017
Company Equipment ID:	P21B
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P018
Company Equipment ID:	P23A
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P019
Company Equipment ID:	P23B
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable

Group Name: Three 14.0 MMBtu/hr Duct Burners

Emissions Unit ID:	P020
Company Equipment ID:	P20A
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P021
Company Equipment ID:	P22A
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P022
Company Equipment ID:	P24A
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install and Operate

Permit Number: P0104183

Facility ID: 0634000101

Effective Date: 8/5/2009

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. For facilities that are permitted as synthetic minor sources, the fee schedule is adjusted annually for inflation. 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 Ohio EPA DAPC, Southeast District Office 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 submitting 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 emission 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.

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



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install and Operate

Permit Number: P0104183

Facility ID: 0634000101

Effective Date: 8/5/2009

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.



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install and Operate

Permit Number: P0104183

Facility ID: 0634000101

Effective Date: 8/5/2009

B. Facility-Wide Terms and Conditions



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install and Operate

Permit Number: P0104183

Facility ID: 0634000101

Effective Date: 8/5/2009

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 following emission unit contained in the permit is subject to 40 CFR Part 60 Subpart KKKK: (P014 – P022), The complete NSPS requirements, including the NSPS General Provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website <http://ecfrgpoaccess.gov> or by contacting the appropriate Ohio EPA District office or local air agency.



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install and Operate

Permit Number: P0104183

Facility ID: 0634000101

Effective Date: 8/5/2009

C. Emissions Unit Terms and Conditions



1. **Emissions Unit Group - Six 21.9 MMBtu/hr Co-genTurbines: P014, P015, P016, P017, P018, P019,**

EU ID Operations, Property and/or Equipment Description

- P014 Combustion Unit 1 - Turbine 1 of 2, 21.9 MMBtu/hr turbine burning biogas or natural gas vented to a stack, a heat recovery steam generator or duct burner vented to a heat recovery steam generator
- P015 Combustion Unit 1 - Turbine 2 of 2, 21.9 MMBtu/hr turbine burning biogas or natural gas vented to a stack, a heat recovery steam generator or duct burner vented to a heat recovery steam generator
- P016 Combustion Unit 2 - Turbine 1 of 2, 21.9 MMBtu/hr turbine burning biogas or natural gas vented to a stack, a heat recovery steam generator or duct burner vented to a heat recovery steam generator
- P017 Combustion Unit 2 - Turbine 2 of 2, 21.9 MMBtu/hr turbine burning biogas or natural gas vented to a stack, a heat recovery steam generator or duct burner vented to a heat recovery steam generator
- P018 Combustion Unit 3 - Turbine 1 of 2, 21.9 MMBtu/hr turbine burning biogas or natural gas vented to a stack, a heat recovery steam generator or duct burner vented to a heat recovery steam generator
- P019 Combustion Unit 3 - Turbine 2 of 2, 21.9 MMBtu/hr turbine burning biogas or natural gas vented to a stack, a heat recovery steam generator or duct burner vented to a heat recovery steam generator

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. g)(1).

(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. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(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. 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)(a)(ii)	See b)(2)a. below.
b.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		any stack serving this emissions unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.
c.	OAC rule 3745-17-11(B)(4)	PE shall not exceed 0.040 pound/million Btu of actual heat input.
d.	OAC rule 3745-18-06(F)	Sulfur dioxide (SO ₂) emissions shall not exceed 0.5 pounds of sulfur dioxide per MMBtu actual heat input.
e.	OAC rule 3745-21-08(B)	See b)(2)b.
f.	OAC rule 3745-110-02(A)(2)(b)	The requirements established pursuant to this rule are less stringent than the requirements of 40 CFR Part 60, Subpart KKKK. See b)(1)g.
g.	<p>40 CFR Part 60, Subpart KKKK (40 CFR 60.4300 – 4420)</p> <p>[In accordance with 40 CFR 60.4305, this emissions unit is a stationary combustion turbine using steam injection and is subject to the emission limitations / control measures specified in this section.]</p>	<p>NO_x : When total heat input is greater than 50 percent distillate oil and fuels other than natural gas : Nitrogen Oxide (NO_x) emissions shall not exceed 96 ppm at 15 percent O₂ or, 700 ng NO_x/J of useful output (5.5 lb NO_x /MWh).</p> <p>When total heat input is greater than or equal to 50 percent natural gas : Nitrogen Oxide (NO_x) emissions shall not exceed 42 ppm at 15 percent O₂ or, 290 ng/J of useful output (2.3 lb NO_x /MWh).</p> <p>[40 CFR 60.4320 – 60.4325]</p> <p>SO₂ : The permittee must not cause to be discharged into the atmosphere from the subject stationary combustion turbine any gases which contain SO₂ in excess of 110 nanograms per Joule (ng/J) (0.90 pounds per megawatt-hour (lb/MWh)) gross output, or The permittee must not burn in the subject stationary combustion turbine any fuel which contains total potential sulfur emissions in excess of 26 ng SO₂/J (0.060 lb SO₂/MMBtu) heat input.</p> <p>If turbine simultaneously fires multiple</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		fuels, each fuel must meet this requirement. [40 CFR 60.4330]

(2) Additional Terms and Conditions

- a. The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the Nitrogen Oxides (NO_x), Particulate Emissions (PE), Sulfur dioxide (SO₂), Carbon Monoxide (CO), or Organic Compounds (OC) from the turbine(s) since the uncontrolled potential to emit for NO_x, PE, SO₂, CO, and OC's are each less than ten tons per year.
- b. The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B).

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

- c. Upon the effective date of this permit, the installation of emission units B001, B002, P011, P012 and P013 per Permit to Install 06-07332 (issued on 3/15/05) is prohibited.

c) Operational Restrictions

- (1) The permittee shall only burn natural gas or biogas fuels.
- (2) The permittee shall not fire more than two emission units from each of the following Combustion Unit Groups (consisting of two turbines and one duct burner) at any one time.

New units	2 – 21.9 MMBtu/hr Turbines	14 MMBtu/hr Duct Burner
CU -1	P014, P015	P020
CU -2	P016, P017	P021
CU -3	P018, P019	P022

- (3) The permittee shall comply with the applicable operational requirements required under 40 CFR Part 60, Subpart KKKK, including the following sections:

60.4333 - (a)	Operation and maintenance
60.4333 - (b)	When an affected unit with heat recovery utilizes a common steam header with one or more combustion



turbines, the owner or operator shall either comply with (b)(1) or (b)(2).

d) Monitoring and/or Recordkeeping Requirements

- (1) For each day during which the permittee burns a fuel other than natural gas or biogas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
- (2) The permittee shall perform daily checks, when a fuel other than natural gas is burned in this emissions unit 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 location and color of the visible emissions;
 - b. the cause of the visible particulate emissions;
 - c. the total duration of any visible emissions incident; and
 - d. any corrective actions taken eliminate the visible emissions.
- (3) The permittee shall comply with the applicable monitoring and recordkeeping requirements required under 40 CFR Part 60, Subpart KKKK, including the following sections:

60.4335 (a) -(b)	Demonstrate compliance for NO _x using water or steam injection
60.4340 (a) -(b)	Demonstrate continuous compliance for NO _x not using water or steam injection
60.4345 (a) -(e)	Requirements for continuous emission monitoring system equipment
60.4350 (a) -(h)	Identify excess emissions from the continuous emission monitoring system data
60.4355 (a) -(b)	Establish and document a proper parameter monitoring plan
60.4360	Determine the total sulfur content of the turbines combustion fuel
60.4365 (a) -(b)	Exemption for monitoring the total sulfur content of the fuel
60.4370 (a) -(c)	Frequency for determining the sulfur content of the fuel

e) Reporting Requirements

- (1) 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 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.



- (2) The permittee shall submit semiannual reports and such other notifications and reports to the Ohio EPA Southeast District Office as are pursuant to 40 CFR Part 60, Subpart KKKK, per the following sections:

60.4375 (a) -(b)	Excess emissions and monitor downtime reports
60.4380 (a) -(c)	Define excess emissions and monitor downtime for NO _x that must be reported
60.4385 (a) -(c)	Define excess emissions and monitor downtime for SO ₂ that must be reported
60.4395	Submission of reports

- (3) Pursuant to 40 CFR Part 60.7, the source owner/operator is hereby advised of the requirement to report the following at appropriate times:
 - a. construction date (no later than 30 days after such date);
 - b. actual start-up date (within 15 days after such date); and
 - c. date of performance testing (if required, at least 30 days prior to testing).
 Reports are to be sent to:

Ohio Environmental Protection Agency
 DAPC- Permit Management Unit
 50 West Town Street, Suite 700
 PO Box 1049
 Columbus, Ohio 43216-1049

and

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

f) Testing Requirements

- (1) Compliance with the emission limitations in section b)(1) of the terms and conditions of this permit shall be determined in accordance with the following methods:

a. Emission Limitation:

Visible PE from any stack serving this emissions unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.

Applicable Compliance Method:

If required, visible particulate emissions shall be determined according to USEPA Method 9.

b. Emission Limitation:

PE shall not exceed 0.040 pound/million Btu of actual heat input.



Applicable Compliance Method:

If required, particulate emissions shall be determined according to USEPA Methods 1 - 5.

c. Emission Limitation:

SO₂ emissions shall not exceed 0.5 pounds of sulfur dioxide per MMBtu actual heat input.

Applicable Compliance Method:

If required, sulfur dioxide emissions shall be determined according to USEPA Methods 1 through 4 and Method 6.

d. Emission Limitation:

When total heat input is greater than 50 percent distillate oil and fuels other than natural gas :

NO_x emissions shall not exceed 96 ppm NO_x at 15 percent O₂ or, 700 ng NO_x/J of useful output (5.5 lb NO_x /MWh).

Or, When total heat input is greater than or equal to 50 percent natural gas : NO_x emissions shall not exceed 42 ppm NO_x at 15 percent O₂ or, 290 ng NO_x/J of useful output (2.3 lb NO_x/MWh).

Applicable Compliance Method:

NO_x emissions shall be determined according to USEPA Methods 1 through 4 , 7E and 3A or 20, as required in f)(2).

e. Emission Limitation:

The permittee must not cause to be discharged into the atmosphere from the subject stationary combustion turbine any gases which contain SO₂ in excess of 110 nanograms per Joule (ng/J) (0.90 pounds per megawatt-hour (lb/MWh)) gross output, or

The permittee must not burn in the subject stationary combustion turbine any fuel which contains total potential sulfur emissions in excess of 26 ng SO₂/J (0.060 lb SO₂/MMBtu) heat input.

Applicable Compliance Method:

SO₂ emissions shall be determined according to USEPA Method 6, 6C, 8 or 20 as required in f)(2).

- (2) The permittee shall comply with the applicable testing requirements required under 40 CFR Part 60, Subpart KKKK, including the following sections:



60.8	40 CFR Part 60 (NSPS) General testing protocols
60.4400 (a) -(b)	Initial and subsequent testing for NO _x
60.4405 (a) -(d)	Initial performance test with NO _x -diluent CEMS
60.4410	Establish a valid parameter range for continuous NO _x monitoring
60.4415 (a)	Initial and subsequent testing for SO ₂

(3) Performance testing shall be conducted as required in 40 CFR Part 60 Subpart KKKK. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility. For SO₂, subsequent performance tests shall be conducted on an annual basis (no more than 14 calendar months following the previous test).

b. The emissions testing shall be conducted to demonstrate compliance with the NO_x and SO₂ emission limitations.

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

NO_x Method 7E or 20 40 CFR Part 60, Appendix A
 Or Method 7E and 3A or 20 accordingly

SO₂ Method 6, 6C, 8 or 20 40 CFR Part 60, Appendix A

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

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

e. No later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emissions test(s).

f. Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install and Operate

Permit Number: P0104183

Facility ID: 0634000101

Effective Date: 8/5/2009

testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

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

g) Miscellaneous Requirements

- (1) Modeling to demonstrate compliance with the "Toxic Air Contaminant Statute" in ORC 3704.03(F)(4)(b) was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.



2. Emissions Unit Group - Three 14.0 MMBtu/hr Duct Burners: P020, P021, P022,

EU ID	Operations, Property and/or Equipment Description
P020	Combustion Unit 1 - 14.0 MMBtu/hr Duct Burner vented to heat recovery steam generator.
P021	Combustion Unit 2 - 14.0 MMBtu/hr Duct Burner vented to heat recovery steam generator.
P022	Combustion Unit 3 - 14.0 MMBtu/hr Duct Burner vented to heat recovery steam generator.

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. g)(1).

(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. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(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. 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)	Nitrogen oxides (NO _x) emissions shall not exceed 2.44 pounds per hour and 10.7 TPY. The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A)(1), 3745-17-11(B)(4) and 40 CFR Part 60, Subpart KKKK.
b.	OAC rule 3745-31-05(A)(3)(a)(ii)	See b)(2)a. below.
c.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.
d.	OAC rule 3745-17-11(B)(4)	PE shall not exceed 0.040 pound/million Btu of actual heat input.
e.	OAC rule 3745-18-06(F)	Sulfur dioxide (SO ₂) emissions shall not



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		exceed 0.5 pounds of sulfur dioxide per MMBtu actual heat input.
f.	OAC rule 3745-21-08(B)	See b)(2)b.
g.	OAC rule 3745-110-03(J)(15)	See b)(2)c.
h.	<p>40 CFR Part 60, Subpart KKKK (40 CFR 60.4300 – 4420)</p> <p>[In accordance with 40 CFR 60.4320, this emissions unit is a stationary combustion turbine using steam injection and is subject to the emission limitations / control measures specified in this section.]</p>	<p>NO_x : When total heat input is greater than 50 percent distillate oil and fuels other than natural gas : Nitrogen Oxide (NO_x) emissions shall not exceed 96 ppm at 15 percent O₂ or, 700 ng NO_x/J of useful output (5.5 lb NO_x /MWh).</p> <p>When total heat input is greater than or equal to 50 percent natural gas : Nitrogen Oxide (NO_x) emissions shall not exceed 42 ppm at 15 percent O₂ or, 290 ng/J of useful output (2.3 lb NO_x /MWh).</p> <p>[40 CFR 60.4320 – 60.4325]</p> <p>SO₂ : The permittee must not cause to be discharged into the atmosphere from the subject stationary combustion turbine any gases which contain SO₂ in excess of 110 nanograms per Joule (ng/J) (0.90 pounds per megawatt-hour (lb/MWh)) gross output, or The permittee must not burn in the subject stationary combustion turbine any fuel which contains total potential sulfur emissions in excess of 26 ng SO₂/J (0.060 lb SO₂/MMBtu) heat input.</p> <p>If turbine simultaneously fires multiple fuels, each fuel must meet this requirement. [40 CFR 60.4330]</p>

(2) Additional Terms and Conditions

- a. The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the particulate emissions (PE), Sulfur dioxide (SO₂), Carbon Monoxide (CO), or Organic Compounds (OC) from the duct burner(s) since the uncontrolled potential to emit for PE, SO₂, CO, and OC's are each less than ten tons per year.



- b. The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B).

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

- c. The requirements of OAC rule 3745-110-03(A)-(F) do not apply to this source.

c) **Operational Restrictions**

- (1) The permittee shall only burn natural gas or biogas fuels.
- (2) The permittee shall not fire more than two emission units from each of the following Combustion Unit Groups (consisting of two turbines and one duct burner) at any one time.

New units	2 – 21.9 MMBtu/hr Turbines	14 MMBtu/hr Duct Burner
CU -1	P014, P015	P020
CU -2	P016, P017	P021
CU -3	P018, P019	P022

- (3) The permittee shall comply with the applicable operational requirements required under 40 CFR Part 60, Subpart KKKK, including the following sections:

60.4333 - (a)	Operation and maintenance
60.4333 - (b)	When an affected unit with heat recovery utilizes a common steam header with one or more combustion turbines, the owner or operator shall either comply with (b)(1) or (b)(2).

d) **Monitoring and/or Recordkeeping Requirements**

- (1) For each day during which the permittee burns a fuel other than natural gas or biogas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
- (2) The permittee shall perform daily checks, when a fuel other than natural gas is burned in this emissions unit 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 location and color of the visible emissions;
 - b. the cause of the visible particulate emissions;
 - c. the total duration of any visible emissions incident; and
 - d. any corrective actions taken eliminate the visible emissions.
- (3) The permittee shall comply with the applicable monitoring and recordkeeping requirements required under 40 CFR Part 60, Subpart KKKK, including the following sections:

60.4335 (a) -(b)	Demonstrate compliance for NO _x using water or steam injection
60.4340 (a) -(b)	Demonstrate continuous compliance for NO _x not using water or steam injection
60.4345 (a) -(e)	Requirements for continuous emission monitoring system equipment
60.4350 (a) -(h)	Identify excess emissions from the continuous emission monitoring system data
60.4355 (a) -(b)	Establish and document a proper parameter monitoring plan
60.4360	Determine the total sulfur content of the turbines combustion fuel
60.4365 (a) -(b)	Exemption for monitoring the total sulfur content of the fuel
60.4370 (a) -(c)	Frequency for determining the sulfur content of the fuel

e) Reporting Requirements

- (1) 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 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.
- (2) The permittee shall submit semiannual reports and such other notifications and reports to the Ohio EPA Southeast District Office as are pursuant to 40 CFR Part 60, Subpart KKKK, per the following sections:

60.4375 (a) -(b)	Excess emissions and monitor downtime reports
60.4380 (a) -(c)	Define excess emissions and monitor downtime for NO _x that must be reported
60.4385 (a) -(c)	Define excess emissions and monitor downtime for SO ₂ that must be reported
60.4395	Submission of reports



(3) Pursuant to 40 CFR Part 60.7, the source owner/operator is hereby advised of the requirement to report the following at appropriate times:

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

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC- Permit Management Unit
50 West Town Street, Suite 700
PO Box 1049
Columbus, Ohio 43216-1049

and

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

f) Testing Requirements

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

a. Emission Limitation:

Nitrogen oxides (NO_x) emissions shall not exceed 2.44 pounds per hour and 10.7 TPY.

Applicable Compliance Method:

Compliance with the lbs/hr emission limitation shall be demonstrated by multiplying the emission factor for NO_x from AP-42, Table 1.4-1, (7/1998) (100.0 lb/MMcf for biogas) by the rated capacity of 14.0 MMBtu/hr or 0.0244 MMcf /hr /burner. Compliance with the tons per year limitation is demonstrated by multiplying the lbs/hr emission calculation by 8,760 hrs/yr, then dividing by 2,000 lbs/ton.

If required, NO_x emissions shall be determined according to test Methods 1 - 4, and 7 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

b. Emission Limitation:

Visible PE from any stack serving this emissions unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.



Applicable Compliance Method:

If required, visible particulate emissions shall be determined according to USEPA Method 9.

c. Emission Limitation:

PE shall not exceed 0.040 pound/million Btu of actual heat input.

Applicable Compliance Method:

If required, particulate emissions shall be determined according to USEPA Methods 1 - 5.

d. Emission Limitation:

SO₂ emissions shall not exceed 0.5 pounds of sulfur dioxide per MMBtu actual heat input.

Applicable Compliance Method:

If required, sulfur dioxide emissions shall be determined according to USEPA Methods 1 through 4 and 6.

e. Emission Limitation:

When total heat input is greater than 50 percent distillate oil and fuels other than natural gas :

NO_x emissions shall not exceed 96 ppm at 15 percent O₂ or, 700 ng NO_x/J of useful output (5.5 lb NO_x/MWh).

Or, If your total heat input is greater than or equal to 50 percent natural gas :

NO_x emissions shall not exceed 42 ppm at 15 percent O₂ or, 290 ng NO_x/J of useful output (2.3 lb NO_x/MWh).

Applicable Compliance Method:

NO_x emissions shall be determined according to USEPA Methods 1 through 4, 7E and 3A or 20, as required in f)(2).

f. Emission Limitation:

The permittee must not cause to be discharged into the atmosphere from the subject stationary combustion turbine any gases which contain SO₂ in excess of 110 nanograms per Joule (ng/J) (0.90 pounds per megawatt-hour (lb/MWh)) gross output, or



- e. No later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emissions test(s).
- f. Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

g) **Miscellaneous Requirements**

- (1) Modeling to demonstrate compliance with the "Toxic Air Contaminant Statute" in ORC 3704.03(F)(4)(b) was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.