



John R. Kasich, Governor
 Mary Taylor, Lt. Governor
 Craig W. Butler, Director

11/10/2015

Certified Mail

Randy Meyer
 AMP Hamilton Peaking Plant
 1111 Schrock Rd. Suite 100
 Columbus, OH 43229

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

RE: DRAFT AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE

Facility ID: 1409001171
 Permit Number: P0119265
 Permit Type: Initial Installation
 County: Butler

Dear Permit Holder:

A draft of the Ohio Administrative Code (OAC) Chapter 3745-31 Air Pollution Permit-to-Install and Operate (PTIO) for the referenced facility has been issued for the emissions unit(s) listed in the Authorization section of the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the permit. A public notice will appear in the Ohio Environmental Protection Agency (EPA) Weekly Review and the local newspaper, Journal News. A copy of the public notice and the draft permit are enclosed. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab. Comments will be accepted as a marked-up copy of the draft permit or in narrative format. Any comments must be sent to the following:

Andrew Hall
 Permit Review/Development Section
 Ohio EPA, DAPC
 50 West Town Street Suite 700
 PO Box 1049
 Columbus, Ohio 43216-1049

and Southwest Ohio Air Quality Agency
 250 William Howard Taft Rd.
 Cincinnati, OH 45219

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published in the newspaper. You will be notified if a public hearing is scheduled. A decision on issuing a final permit-to-install will be made after consideration of comments received and oral testimony if a public hearing is conducted. Any permit fee that will be due upon issuance of a final Permit-to-Install is indicated in the Authorization section. Please do not submit any payment now. If you have any questions, please contact Southwest Ohio Air Quality Agency at (513)946-7777.

Sincerely,

Michael E. Hopkins, P.E.
 Assistant Chief, Permitting Section, DAPC

Cc: U.S. EPA Region 5 Via E-Mail Notification
 SWOQA; Indiana; Kentucky

Permit Strategy Write-Up

1. Check all that apply:

Synthetic Minor Determination

Netting Determination

2. Source Description: American Municipal Power (AMP) proposes to install eleven (11) 10 MW 4-Stroke Lean Burn Natural Gas-Fired Engines in Hamilton, Ohio, to provide peaking power. Ultimately, AMP will select either 9,700 kW Caterpillar Model G20CM34 or 9,341 kW Wartsila Model 20V34SGD engines for the project.
3. Facility Emissions and Attainment Status: The AMP facility will be located in Butler County which is marginal non-attainment for ozone and non-attainment for PM_{2.5}. In order to avoid Title V and Major New Source Review requirements, facility-wide natural gas usage will be limited to 2,970 million standard cubic feet (equates to 3,504 operating hours per engine) per rolling, 12-month period. In addition, each engine will be limited to 520 start-ups and 520 shutdowns per rolling, 12-month period. The project does not require netting for PSD since the previous site facility (power plant) will be completely demolished and the site cleared prior to installation of these engines. Facility-wide HAPs will be limited to 9.9 TPY (individual HAP) and 24.9 TPY (combined HAPs) with an emissions test of the initial operating engine required to demonstrate compliance.
4. Source Emissions: Emissions consist of typical natural gas combustion byproducts. Each engine will be equipped with SCR to control NO_x and an Oxidation Catalyst System to control CO and VOCs. Primary HAPs include formaldehyde, acetaldehyde and acrolein. Each engine will be subject to NSPS Subpart JJJJ and MACT Subpart ZZZZ. BAT is in accordance with Engineering Guide #87. Dual BAT applies to all criteria pollutants since requested restrictions ensure emissions < 10 TPY. Emission limitations of criteria pollutants are based upon the "worst case" emissions (except SO₂) between the 2 engines under consideration for the project. SO₂ emissions are based upon the Caterpillar engine which reflects the use of domestic fuel. "State-Only" modeling was performed for NO_x and PM_{10/2.5}(Caterpillar engines) and PM_{10/2.5}(Wartsila engines).
5. Conclusion: Recommend FEPTIO be issued in draft.
6. Please provide additional notes or comments as necessary:

None



7. Total Permit Allowable Emissions Summary (for informational purposes only):

<u>Pollutant</u>	<u>Tons Per Year</u>
Individual/Total HAPs	9.9/24.9
CO	68.8
VOCs	50.16
SO ₂	2.53
PM ₁₀ /PM _{2.5}	48.18
NO _x	41.25

PUBLIC NOTICE

The following matters are the subject of this public notice by the Ohio Environmental Protection Agency. The complete public notice, including any additional instructions for submitting comments, requesting information, a public hearing, or filing an appeal may be obtained at: <http://epa.ohio.gov/actions.aspx> or Hearing Clerk, Ohio EPA, 50 W. Town St., Columbus, Ohio 43215. Ph: 614-644-2129 email: HClerk@epa.ohio.gov

Draft Air Pollution Permit-to-Install and Operate Initial Installation

AMP Hamilton Peaking Plant

960 N Third St., Hamilton, OH 45011

ID#:P0119265

Date of Action: 11/10/2015

Permit Desc: Initial installation of eleven (11) 10 MW 4-stroke lean burn natural gas-fired engines to provide peaking power. Each engine will be limited to 3,504 operating hours, 520 cold start-ups and 520 shut-downs per year in order to avoid Title V and Major New Source Review requirements..

The permit and complete instructions for requesting information or submitting comments may be obtained at: <http://epa.ohio.gov/dapc/permitsonline.aspx> by entering the ID # or: Paul Tedtman, Southwest Ohio Air Quality Agency, 250 William Howard Taft Rd., Cincinnati, OH 45219. Ph: (513)946-7777



DRAFT

**Division of Air Pollution Control
Permit-to-Install and Operate
for
AMP Hamilton Peaking Plant**

Facility ID:	1409001171
Permit Number:	P0119265
Permit Type:	Initial Installation
Issued:	11/10/2015
Effective:	To be entered upon final issuance
Expiration:	To be entered upon final issuance



Division of Air Pollution Control
Permit-to-Install and Operate
for
AMP Hamilton Peaking Plant

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Draft Permit-to-Install and Operate

AMP Hamilton Peaking Plant

Permit Number: P0119265

Facility ID: 1409001171

Effective Date: To be entered upon final issuance

Authorization

Facility ID: 1409001171
Application Number(s): A0053454
Permit Number: P0119265
Permit Description: Initial installation of eleven (11) 10 MW 4-stroke lean burn natural gas-fired engines to provide peaking power. Each engine will be limited to 3,504 operating hours, 520 cold start-ups and 520 shut-downs per year in order to avoid Title V and Major New Source Review requirements.
Permit Type: Initial Installation
Permit Fee: \$2,200.00 *DO NOT send payment at this time, subject to change before final issuance*
Issue Date: 11/10/2015
Effective Date: To be entered upon final issuance
Expiration Date: To be entered upon final issuance
Permit Evaluation Report (PER) Annual Date: To be entered upon final issuance

This document constitutes issuance to:

AMP Hamilton Peaking Plant
960 N Third St
Hamilton, OH 45011

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

Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Southwest Ohio Air Quality Agency
250 William Howard Taft Rd.
Cincinnati, OH 45219
(513)946-7777

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

Craig W. Butler
Director



Authorization (continued)

Permit Number: P0119265

Permit Description: Initial installation of eleven (11) 10 MW 4-stroke lean burn natural gas-fired engines to provide peaking power. Each engine will be limited to 3,504 operating hours, 520 cold start-ups and 520 shut-downs per year in order to avoid Title V and Major New Source Review requirements.

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

Group Name: 10 MW 4-Stroke Lean Burn Engines

Emissions Unit ID:	P001
Company Equipment ID:	Engine #1
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P002
Company Equipment ID:	Engine #2
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P003
Company Equipment ID:	Engine #3
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P004
Company Equipment ID:	Engine #4
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P005
Company Equipment ID:	Engine #5
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P006
Company Equipment ID:	Engine #6
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P007
Company Equipment ID:	Engine #7
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P008
Company Equipment ID:	Engine #8
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P009
Company Equipment ID:	Engine #9
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P010
Company Equipment ID:	Engine #10
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



Draft Permit-to-Install and Operate

AMP Hamilton Peaking Plant

Permit Number: P0119265

Facility ID: 1409001171

Effective Date: To be entered upon final issuance

Emissions Unit ID:	P011
Company Equipment ID:	Engine #11
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



Draft Permit-to-Install and Operate
AMP Hamilton Peaking Plant
Permit Number: P0119265
Facility ID: 1409001171
Effective Date: To be entered upon final issuance

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 of this permit 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 Southwest Ohio Air Quality 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 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 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.



Draft Permit-to-Install and Operate
AMP Hamilton Peaking Plant
Permit Number: P0119265
Facility ID: 1409001171
Effective Date: To be entered upon final issuance

B. Facility-Wide Terms and Conditions

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) B.2. – B.10.
2. The actual emissions of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act from the entire facility, more specifically, emissions units P001 (10 MW 4-Stroke Lean Burn Engine #1), P002 (10 MW 4-Stroke Lean Burn Engine #2), P003 (10 MW 4-Stroke Lean Burn Engine #3), P004 (10 MW 4-Stroke Lean Burn Engine #4), P005 (10 MW 4-Stroke Lean Burn Engine #5), P006 (10 MW 4-Stroke Lean Burn Engine #6), P007 (10 MW 4-Stroke Lean Burn Engine #7), P008 (10 MW 4-Stroke Lean Burn Engine #8), P009 (10 MW 4-Stroke Lean Burn Engine #9), P010 (10 MW 4-Stroke Lean Burn Engine #10), P011 (10 MW 4-Stroke Lean Burn Engine #11) and all de minimus units (as defined in OAC rule 3745-15-05) and units exempt from the requirement to obtain a permit-to-install pursuant to OAC rule 3745-31-03, combined, shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs. Compliance with the above limitations shall be based on a rolling, 12-month summation.
3. The permittee shall collect and record the following information each month for the emissions units identified in B.2.:
 - a) The total natural gas usage in million standard cubic feet;
 - b) The engine's emission rate for each individual HAP, in pounds per million BTU, determined by the best data available;
 - c) The total emissions for each individual HAP, in tons (a times b)) times 1080 BTU per standard cubic foot / 2000 pounds per ton);
 - d) The updated rolling, 12-month summation for each individual HAP, in tons. This shall include the information for the current month and the preceding eleven calendar months; and
 - e) The updated rolling, 12-month summation of total combined HAPs, in tons, the summation of d). This shall include the information for the current month and the preceding eleven calendar months.

A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting your Ohio EPA field office or local air agency contact.
4. The following emission limitations shall apply to emission units P001 – P011 combined:
NOx emissions shall not exceed 41.46 TPY based upon a rolling 12-month summation.

CO emissions shall not exceed 66.33 TPY based upon a rolling 12-month summation.

VOC emissions shall not exceed 50.40 TPY based upon a rolling 12-month summation.

PM₁₀/PM_{2.5} emissions shall not exceed 48.46 TPY based upon a rolling 12-month summation.

SO₂ emissions shall not exceed 2.49 TPY based upon a rolling 12-month summation.

5. The maximum annual natural gas usage rate for emissions units P001 – P011 combined shall not exceed 2,970 million standard cubic feet (MSCF) per rolling, 12-month period.

To ensure enforceability during the first 12 calendar months of operation, the permittee shall not exceed the natural gas usage levels specified in the following table:

Month	Maximum Allowable Cumulative Usage (MSCF)
1	495
1-2	990
1-3	1,485
1-4	1,650
1-5	1,815
1-6	1,980
1-7	2,145
1-8	2,310
1-9	2,475
1-10	2,640
1-11	2,805
1-12	2,970

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

6. The permittee shall collect and record the following information each month for the emissions units identified in B.5.:

- a) The natural gas usage for each engine, in MSCF;
- b) The total natural gas usage for all engines combined (sum of a)), in MSCF; and
- c) Beginning after the first 12 calendar months of operation following the issuance of this permit, the updated rolling, 12-month summation of natural gas usage, in MSCF. This shall include the information for the current month and the preceding eleven calendar months.

Also, during the first 12 calendar months of operation following issuance of this permit, the permittee, shall record the cumulative natural gas usage for each calendar month.

7. 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:
 - emission limitations specified in Section B.2.; and
 - operational restrictions specified in B.5.
 - 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 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).

8. Compliance with the emission limitations in B.2. and B.4 and operational restriction in B.5. of these terms and conditions shall be determined in accordance with the following methods:
- a) Emission Limitation:
 - 9.9 TPY for any single HAP and 24.9 TPY for combined HAPs, based on a rolling 12-month summation for the emissions units listed in B.2.
- Applicable Compliance Method:
- Compliance with the HAP emission limitations shall be demonstrated by the recordkeeping requirements specified in B.3. and emissions testing as specified in B.9.

b) Operational Restriction:

The maximum annual natural gas usage rate for emission units P001 – P011 combined shall not exceed 2,970 million standard cubic feet (MSCF) per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the gas usage restriction shall be demonstrated by the recordkeeping requirements specified in B.6.

c) Emission Limitation:

NOx emissions shall not exceed 41.46 TPY based upon a rolling 12-month summation.

Applicable Compliance Method:

2,970 million scf/yr times 1080 Btu/scf times kwh/8530 Btu* times 0.1 g/kwh** times kg/1000 g times 2.205 lbs per kg times ton/2000 lbs.

*Engine-specific electrical production rate; **Vendor guaranteed emission rate

d) Emission Limitation:

CO emissions shall not exceed 66.33 TPY based upon a rolling 12-month summation.

Applicable Compliance Method:

2,970 million scf/yr times 1080 Btu/scf times kwh/8530 Btu* times 0.16 g/kwh** times kg/1000 g times 2.205 lbs. per kg times ton/2000 lbs.

*Engine-specific electrical production rate; **Vendor guaranteed emission rate

e) Emission Limitation:

VOC emissions shall not exceed 50.40 TPY based upon a rolling 12-month summation.

Applicable Compliance Method:

2,970 million scf/yr times 1080 Btu/scf times kwh/8857 Btu* times 2.6 lbs/hr** times ton/2000 lbs times 1/9341 kw.

*Engine-specific electrical production rate; **Vendor guaranteed emission rate

f) Emission Limitation:

PM10/PM2.5 emissions shall not exceed 48.46 TPY based upon a rolling 12-month summation.

Applicable Compliance Method:

2,970 million scf/yr times 1080 Btu/scf times kwh/8857 Btu* times 2.5 lbs/hr** times ton/2000 lbs times 1/9341 kw.

*Engine-specific electrical production rate; **Vendor guaranteed emission rate

g) Emission Limitation:

SO₂ emissions shall not exceed 2.49 TPY based upon a rolling 12-month summation.

Applicable Compliance Method:

2,970 million scf/yr times 1080 Btu/scf times kwh/8530 Btu* times 0.006 g/kwh** times kg/1000 g times 2.205 lbs. per kg times ton/2000 lbs.

*Engine-specific electrical production rate; **Vendor guaranteed emission rate

9. The permittee shall conduct, or have conducted, emission testing in accordance with the following requirements:
- h) the emission testing shall be conducted on the first engine to be declared operational, within 60 days following its initial operation;
 - i) the emission testing shall be conducted in accordance with USEPA Methods 25 and 323 or an alternative test protocol approved by the Ohio EPA (the appropriate District Office or local air agency);
 - j) not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Southwest Ohio Air Quality Agency (SWOAQA). 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 SWOAQA's refusal to accept the results of the emission test(s);
 - k) personnel from SWOAQA 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; and
 - l) 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 SWOAQA 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 SWOAQA.
10. The permittee is advised that this facility may be subject to the "Generally Available Control Technology" (GACT) requirements under 40 CFR Part 63, Subpart ZZZZ, the National Emissions Standards for Hazardous Air Pollutants (NESHAP) for reciprocating internal combustion engines-existing compression ignition. The U.S. EPA is responsible for the administration of the requirements of this rule at this time. It should be noted that the enforcement authority of the GACT requirements is not delegated to Ohio EPA at the time of this permit processing. The complete requirements of this rule



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(including the Part 63 General Provisions) may be accessed via the Internet from the Electronic code of Federal Regulations (e-CFR) website <http://www.ecfr.gov/> or by contacting the appropriate Ohio EPA District Office or Local Air Agency.



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C. Emissions Unit Terms and Conditions

**1. Emissions Unit Group -10 MW 4-Stroke Lean Burn Engines:
 P001,P002,P003,P004,P005,P006,P007,P008,P009,P010,P011**

EU ID	Operations, Property and/or Equipment Description
P001	10 MW 4-Stroke Lean Burn Natural Gas-Fired IC Engine #1 with SCR and Oxidation Catalyst
P002	10 MW 4-Stroke Lean Burn Natural Gas-Fired IC Engine #2 with SCR and Oxidation Catalyst
P003	10 MW 4-Stroke Lean Burn Natural Gas-Fired IC Engine #3 with SCR and Oxidation Catalyst
P004	10 MW 4-Stroke Lean Burn Natural Gas-Fired IC Engine #4 with SCR and Oxidation Catalyst
P005	10 MW 4-Stroke Lean Burn Natural Gas-Fired IC Engine #5 with SCR and Oxidation Catalyst
P006	10 MW 4-Stroke Lean Burn Natural Gas-Fired IC Engine #6 with SCR and Oxidation Catalyst
P007	10 MW 4-Stroke Lean Burn Natural Gas-Fired IC Engine #7 with SCR and Oxidation Catalyst
P008	10 MW 4-Stroke Lean Burn Natural Gas-Fired IC Engine #8 with SCR and Oxidation Catalyst
P009	10 MW 4-Stroke Lean Burn Natural Gas-Fired IC Engine #9 with SCR and Oxidation Catalyst
P010	10 MW 4-Stroke Lean Burn Natural Gas-Fired IC Engine #10 with SCR and Oxidation Catalyst
P011	10 MW 4-Stroke Lean Burn Natural Gas-Fired IC Engine #11 with SCR and Oxidation Catalyst

- 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)b.
 - (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)h.
- 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), 6/30/08	<p>The exhaust emissions from this engine shall not exceed:</p> <p>1.0 grams nitrogen oxides (NO_x) per horsepower-hour (g/HP-hr); and 82 parts per million by volume, dry, (ppmvd) NO_x at 15% O₂;</p> <p>2.0 g/HP-hr carbon monoxide (CO); and 270 ppmvd CO at 15% O₂;</p> <p>0.7 g/HP-hr volatile organic compounds (VOC)*; and 60 ppmvd VOC at 15% O₂.</p> <p>* When calculating emissions of VOC, emissions of formaldehyde should not be included.</p> <p>0.019 ton per month of sulfur dioxide (SO₂) averaged over a 12-month rolling period; and</p> <p>0.367 ton per month of particulate matter 10 microns and less in diameter (PM₁₀) and particulate matter 2.5 microns and less in diameter (PM_{2.5}) averaged over a 12-month rolling period.</p> <p>See b)(2)a.</p>
b.	OAC rule 3745-31-05(A)(3)(a)(ii), 6/30/08	<p>The Best Available Technology (BAT) requirements under OAC rule 3745-31-05 (A)(3) do not apply to the emissions of NO_x, CO, VOC, SO₂ and PM₁₀/PM_{2.5} since the potential to emit is less than 10 tons per year, taking into account the federally enforceable emission restrictions from OAC rule 3745-31-05 (D).</p> <p>See b)(2)b.</p>
c.	40 CFR Part 60 Subpart JJJJ 40 CFR 60.4233(e)	The exhaust emissions from this engine shall not exceed:

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	Table 1 to Subpart JJJJ	<p>1.0 grams nitrogen oxides (NOx) per horsepower-hour (g/HP-hr); and 82 parts per million by volume, dry, (ppmvd) NOx at 15% O₂;</p> <p>2.0 g/HP-hr carbon monoxide (CO); and 270 ppmvd CO at 15% O₂;</p> <p>0.7 g/HP-hr volatile organic compounds (VOC)*; and 60 ppmvd VOC at 15% O₂.</p> <p>* When calculating emissions of VOC, emissions of formaldehyde should not be included.</p> <p>See b)(2)c, b)(2)d and b)(2)e.</p>
d.	40 CFR Part 63 Subpart ZZZZ	Compliance for a new or reconstructed stationary RICE located at an area source shall be demonstrated pursuant to 63.6590(c)(1) by meeting the requirements of 40 CFR Part 60 Subpart JJJJ for spark ignition engines. No further requirements apply for such engines under this part.
e.	OAC rule 3745-110-03(F)	The emission limitation specified by this rule is less stringent than the limitation established pursuant to 40 CFR Part 60 Subpart JJJJ.
f.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the exhaust stack serving this emissions unit shall not exceed twenty (20) percent opacity, as a six-minute average, except as specified by rule.
g.	OAC rule 3745-17-11(B)(5)	<p>The emission limitation specified by this rule paragraph applies once USEPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) as part of the Ohio SIP.</p> <p>Particulate emissions (PE) from the engine's exhaust shall not exceed 0.062 pound per million Btu (lb/MMBtu) of actual heat input.</p>
h.	OAC rule 3745-31-05(D) Synthetic minor to avoid Title V for NOx, CO, VOCs and PM _{10/2.5} and major New Source Review	See Section B.2., B.4., B.5., c)(1), c)(2), d)(3), and e)(5).



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	requirements for NOx, VOCs and PM _{2.5}	
i.	OAC rule 3745-18-06(G)	Pursuant to OAC rule 3745-18-06(A), this stationary internal combustion engine is exempt from the sulfur dioxide (SO ₂) emission limitation specified by this rule during any calendar day in which natural gas is the only fuel burned.

(2) Additional Terms and Conditions

- a. The Best Available Technology (BAT) emission limit applies until U.S. EPA approves OAC paragraph 3745-31-05 (A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).
- b. This rule paragraph applies once USEPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) as part of the Ohio SIP.
- c. The stationary spark ignition (SI), internal combustion engine (ICE) is subject to and shall be operated in compliance with the requirements of 40 CFR Part 60, Subpart JJJJ, the standards of performance for stationary SI, ICE over the entire life of the engine.
- d. This emission unit is a stationary SI, ICE certified under the applicable requirements identified in 40 CFR 60.4233(e) and found in Table 1 to Subpart JJJJ of Part 60, for non-emergency, natural gas-fired engines greater than or equal to 500 HP. The permittee shall operate and maintain the certified engine and control device according to the manufacturer's emission-related written instructions and must keep records of conducted maintenance to demonstrate compliance. The permittee must also meet the requirements specified in 40 CFR Part 1068, Subparts A through D, as applicable.
- e. The air-to-fuel ratio (AFR) controller must be maintained and operated properly in order to ensure proper operation of the engine and control device to minimize emissions at all times.
- f. The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 60 are also federally enforceable.

c) Operational Restrictions

- (1) The number of engine start-ups shall not exceed 520 per rolling, 12-month period.
- (2) The number of engine shutdowns shall not exceed 520 per rolling, 12-month period.

- (3) See 40 CFR Part 60, Subpart JJJJ (40 CFR 60.4230 - 4248) for applicable operational requirements.
- d) Monitoring and/or Recordkeeping Requirements
- (1) If you are an owner or operator of a stationary SI, ICE greater than 500 HP, you must keep a maintenance plan and records of conducted maintenance.
 - (2) See 40 CFR Part 60, Subpart JJJJ (40 CFR 60.4230 - 4248) for applicable monitoring and record keeping requirements.
 - (3) The permittee shall collect and record the following information each month:
 - a. The number of engine start-ups;
 - b. The number of engine shutdowns; and
 - c. The updated rolling, 12-month summation of both start-ups and shutdowns. This shall include the information for the current month and the preceding eleven calendar months.
- e) Reporting Requirements
- (1) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the District Office or Local Air Agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services.
 - (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted 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.
 - (3) Pursuant to the NSPS, the permittee is required to report the following information at the appropriate times (if the information has not already been reported):
 - 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 the appropriate local air agency or District Office.

- (4) See 40 CFR Part 60, Subpart JJJJ (40 CFR 60.4230 - 4248) for applicable reporting requirements.
- (5) 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. operational restrictions specified in c)(1) and c)(2).
 - 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 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).

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. Emission Limitations:
 - 1.0 g/HP-hr NO_x; and
 - 82 ppmvd NO_x at 15% O₂.

Applicable Compliance Method:

Compliance with the emission limitations shall be in accordance with the purchase of a certified engine pursuant to 40 CFR 60.4243(b)(1). The g/HP-hr and ppmvd limits are the emission limitations from Table 1 of 40 CFR 60 Subpart JJJJ, emission standards for stationary non-emergency SI engines.



b. Emission Limitations:

2.0 g/HP-hr CO; and

270 ppmvd CO at 15% O₂.

Applicable Compliance Method:

Compliance with the emission limitations shall be in accordance with the purchase of a certified engine pursuant to 40 CFR 60.4243(b)(1). The g/HP-hr and ppmvd limits are the emission limitations from Table 1 of 40 CFR 60 Subpart JJJJ, emission standards for stationary non-emergency SI engines.

c. Emission Limitations:

0.7 g/HP-hr VOC; and

60 ppmvd VOC at 15% O₂.

Applicable Compliance Method:

Compliance with the emission limitations shall be in accordance with the purchase of a certified engine pursuant to 40 CFR 60.4243(b)(1). The g/HP-hr and ppmvd limits are the emission limitations from Table 1 of 40 CFR 60 Subpart JJJJ, emission standards for stationary non-emergency SI engines.

d. Emission Limitation:

0.019 ton per month SO₂ averaged over a 12-month rolling period.

Applicable Compliance Method:

Compliance with the emission limitations shall be in accordance with the purchase of a certified engine pursuant to 40 CFR 60.4243(b)(1). The ton per month limitation is based upon the permittee supplied emission limit specification from the engine manufacturer using the following equation.

$270 \text{ million scf/yr} \times 1080 \text{ Btu/scf} \times \text{kwh}/8530 \text{ Btu}^* \times 0.006 \text{ g/kwh}^{**}$
 $\times \text{kg}/1000 \text{ g} \times 2.205 \text{ lbs. per kg} \times \text{ton}/2000 \text{ lbs} \times \text{yr}/12 \text{ months} =$
0.019 ton per month.

*Engine-specific electrical production rate; **Vendor guaranteed emission rate

e. Emission Limitation:

0.367 ton per month PM₁₀/PM_{2.5} averaged over a 12-month rolling period.

Applicable Compliance Method:

Compliance with the emission limitations shall be in accordance with the purchase of a certified engine pursuant to 40 CFR 60.4243(b)(1). The ton per



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month limitation is based upon the permittee supplied emission limit specification from the engine manufacturer using the following equation.

$270 \text{ million scf/yr} \times 1080 \text{ Btu/scf} \times \text{kwh}/8857 \text{ Btu}^* \times 2.5 \text{ lbs/hr}^{**} \times \text{ton}/2000 \text{ lbs} \times 1/9341 \text{ kw} \times \text{yr}/12 \text{ months} = 0.367 \text{ ton per month.}$

*Engine-specific electrical production rate; **Vendor guaranteed emission rate

f. Emission Limitation:

Visible particulate emissions from the exhaust stack serving this emissions unit shall not exceed twenty (20) percent opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

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

g. Emission Limitation:

0.062 lb PE/MMBtu of actual heat input

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the emission limitation through exhaust emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5.

h. Operational Restrictions:

The number of engine start-ups and engine shutdowns shall not exceed 520 per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the operational restrictions shall be demonstrated by the recordkeeping in d)(3).

(2) See 40 CFR Part 60, Subpart JJJJ (40 CFR 60.4230 - 4248) for applicable testing requirements.

g) Miscellaneous Requirements

(1) None.