



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

4/7/2016

Certified Mail

Abby Credicott
East Ohio Gas - Chippewa Station
5000 Dominion Blvd
Glen Allen, VA 23060

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL
Facility ID: 0285000366
Permit Number: P0120468
Permit Type: Administrative Modification
County: Wayne

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
Yes	MACT/GACT
Yes	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED
No	MAJOR GHG
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA) Air Pollution Permit-to-Install (PTI) which will allow you to install or modify the described emissions unit(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, we urge you to read it carefully. Because this permit contains conditions and restrictions, please read it very carefully. In this letter you will find the information on the following topics:

- **How to appeal this permit**
- **How to save money, reduce pollution and reduce energy consumption**
- **How to give us feedback on your permitting experience**
- **How to get an electronic copy of your permit**
- **What should you do if you notice a spill or environmental emergency?**

How to appeal this permit

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

Environmental Review Appeals Commission
77 South High Street, 17th Floor
Columbus, OH 43215

How to save money, reduce pollution and reduce energy consumption

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. Additionally, all or a portion of the capital expenditures related to installing air pollution control equipment under this permit may be eligible for financing and State tax exemptions through the Ohio Air Quality Development Authority (OAQDA) under Ohio Revised Code Section 3706. For more information, see the OAQDA website: www.ohioairquality.org/clean_air

How to give us feedback on your permitting experience

Please complete a survey at www.epa.ohio.gov/survey.aspx and give us feedback on your permitting experience. We value your opinion.

How to get an electronic copy of your permit

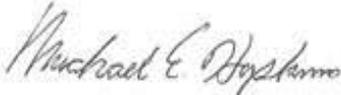
This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

What should you do if you notice a spill or environmental emergency?

Any spill or environmental emergency which may endanger human health or the environment should be reported to the Emergency Response 24-HOUR EMERGENCY SPILL HOTLINE toll-free at (800) 282-9378. Report non-emergency complaints to the appropriate district office or local air agency.

If you have any questions regarding your permit, please contact Ohio EPA DAPC, Northeast District Office at (330)963-1200 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,



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

Cc: U.S. EPA
Ohio EPA-NEDO; Canada



FINAL

**Division of Air Pollution Control
Permit-to-Install
for
East Ohio Gas - Chippewa Station**

Facility ID:	0285000366
Permit Number:	P0120468
Permit Type:	Administrative Modification
Issued:	4/7/2016
Effective:	4/7/2016



Division of Air Pollution Control
Permit-to-Install
for
East Ohio Gas - Chippewa Station

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Final Permit-to-Install
East Ohio Gas - Chippewa Station
Permit Number: P0120468
Facility ID: 0285000366
Effective Date: 4/7/2016

Authorization

Facility ID: 0285000366
Facility Description: Natural gas distribution
Application Number(s): M0003870
Permit Number: P0120468
Permit Description: Administrative modification to update/remove/correct permit terms
Permit Type: Administrative Modification
Permit Fee: \$0.00
Issue Date: 4/7/2016
Effective Date: 4/7/2016

This document constitutes issuance to:

East Ohio Gas - Chippewa Station
17045 Galehouse Road
Doylestown, OH 44230

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

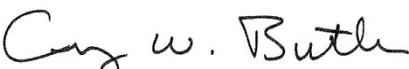
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Northeast District Office
2110 East Aurora Road
Twinsburg, OH 44087
(330)963-1200

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency


Craig W. Butler
Director



Final Permit-to-Install
East Ohio Gas - Chippewa Station
Permit Number: P0120468
Facility ID: 0285000366
Effective Date:4/7/2016

Authorization (continued)

Permit Number: P0120468

Permit Description: Administrative modification to update/remove/correct permit terms

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

Emissions Unit ID:	B014
Company Equipment ID:	Engine #7
Superseded Permit Number:	P0116375
General Permit Category and Type:	Not Applicable



Final Permit-to-Install
East Ohio Gas - Chippewa Station
Permit Number: P0120468
Facility ID: 0285000366
Effective Date:4/7/2016

A. Standard Terms and Conditions

1. Federally Enforceable Standard Terms and Conditions

- a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:
- (1) Standard Term and Condition A.2.a), Severability Clause
 - (2) Standard Term and Condition A.3.c) through A. 3.e)General Requirements
 - (3) Standard Term and Condition A.6.c) and A. 6.d), Compliance Requirements
 - (4) Standard Term and Condition A.9., Reporting Requirements
 - (5) Standard Term and Condition A.10., Applicability
 - (6) Standard Term and Condition A.11.b) through A.11.e), Construction of New Source(s) and Authorization to Install
 - (7) Standard Term and Condition A.14., Public Disclosure
 - (8) Standard Term and Condition A.15., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations
 - (9) Standard Term and Condition A.16., Fees
 - (10) Standard Term and Condition A.17., Permit Transfers

2. Severability Clause

- a) A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.
- b) All terms and conditions designated in parts B and C of this permit are federally enforceable as a practical matter, if they are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under State law only, only if specifically identified in this permit as such.

3. General Requirements

- a) Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and re-issuance, or modification.

- b) It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c) This permit may be modified, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d) This permit does not convey any property rights of any sort, or any exclusive privilege.
- e) The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

4. Monitoring and Related Record Keeping and Reporting Requirements

- a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
 - (1) The date, place (as defined in the permit), and time of sampling or measurements.
 - (2) The date(s) analyses were performed.
 - (3) The company or entity that performed the analyses.
 - (4) The analytical techniques or methods used.
 - (5) The results of such analyses.
 - (6) The operating conditions existing at the time of sampling or measurement.
- b) Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
 - (1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Ohio EPA DAPC, Northeast District Office.

- (2) Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the Ohio EPA DAPC, Northeast District Office. The written reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See A.15. below if no deviations occurred during the quarter.
 - (3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the Ohio EPA DAPC, Northeast District Office every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
 - (4) This permit is for an emissions unit located at a Title V facility. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
- d) The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the Ohio EPA DAPC, Northeast District Office in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06.

Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

6. Compliance Requirements

- a) 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 appropriate Ohio EPA District Office or contracted

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 electronic signature date shall constitute the date that the required application, notification or report is considered to be "submitted". Any document requiring signature may be represented by entry of the personal identification number (PIN) by responsible official as part of the electronic submission process or by the scanned attestation document signed by the Authorized Representative that is attached to the electronically submitted written report.

Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a Responsible Official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

- b) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
- (1) At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
 - (2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
 - (3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - (4) As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c) The permittee shall submit progress reports to the Ohio EPA DAPC, Northeast District Office concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
- (1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - (2) An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

7. Best Available Technology

As specified in OAC Rule 3745-31-05, new sources that must employ Best Available Technology (BAT) shall comply with the Applicable Emission Limitations/Control Measures identified as BAT for each subject emissions unit.

8. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

9. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a) Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the Ohio EPA DAPC, Northeast District Office.
- b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Ohio EPA DAPC, Northeast District Office. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

10. Applicability

This Permit-to-Install is applicable only to the emissions unit(s) identified in the Permit-to-Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s) not exempt from the requirement to obtain a Permit-to-Install.

11. Construction of New Sources(s) and Authorization to Install

- a) This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.
- b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. This deadline may be extended by up to 12 months if application is made to the

Director within a reasonable time before the termination date and the permittee shows good cause for any such extension.

- c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., 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) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed by marking the affected emissions unit(s) as "permanently shut down" in "Air Services" along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update electronically will constitute notifying the Director of the permanent shutdown of the affected emissions unit(s).
- d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., 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). All records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the reporting requirements identified in this permit covering the last period the emissions unit operated.

Unless otherwise exempted, no emissions unit certified by the responsible official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31 and OAC Chapter 3745-77 if the restarted operation is subject to one or more applicable requirements.

- e) The permittee shall comply with any residual requirements related to this permit, such as the requirement to submit a deviation report, air fee emission report, or other any reporting required by this permit for the period the operating provisions of this permit were enforceable, or as required by regulation or law. All reports shall be submitted in a form and manner prescribed by the Director. All records relating to this permit must be maintained in accordance with law.

12. Permit-To-Operate Application

The permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77. The permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if operation of the proposed new or modified source(s) as authorized by this permit would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d) must be obtained before operating the source in a manner that would violate the existing Title V permit requirements.

13. Construction Compliance Certification

The applicant shall identify the following dates in the "Air Services" facility profile for each new emissions unit identified in this permit.

- a) Completion of initial installation date shall be entered upon completion of construction and prior to start-up.
- b) Commence operation after installation or latest modification date shall be entered within 90 days after commencing operation of the applicable emissions unit.

14. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

15. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

16. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable permit-to-install fees within 30 days after the issuance of any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

17. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The new owner must update and submit the ownership information via the "Owner/Contact Change" functionality in "Air Services" once the transfer is legally completed. The change must be submitted through "Air Services" within thirty days of the ownership transfer date.

18. Risk Management Plans

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

19. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.



Final Permit-to-Install
East Ohio Gas - Chippewa Station
Permit Number: P0120468
Facility ID: 0285000366
Effective Date:4/7/2016

B. Facility-Wide Terms and Conditions



Final Permit-to-Install
East Ohio Gas - Chippewa Station
Permit Number: P0120468
Facility ID: 0285000366
Effective Date:4/7/2016

1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:
 - a) None.
2. The Ohio EPA has determined that this facility is subject to the requirements of 40 CFR Part 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. Although Ohio EPA has determined that this Generally Available Control Technology NESHAP (GACT) applies, at this time Ohio EPA does not have the authority to enforce this standard. Instead, U.S. EPA has the authority to enforce this standard. Please be advised, that all requirements associated with this rule are in effect and shall be enforced by U.S. EPA. For more information on the area source rules, please refer to the following U.S. EPA website: <http://www.epa.gov/ttn/atw/area/arearules.html>.
3. The emissions unit contained in this permit is subject to 40 CFR Part 60, Subpart JJJJ - Standards of Performance (NSPS) for Stationary Spark Ignition (SI) Internal Combustion Engines (ICE). The complete NSPS requirements may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website <http://ecfr.gpoaccess.gov> or by contacting the Ohio EPA Northeast District Office.



Final Permit-to-Install
East Ohio Gas - Chippewa Station
Permit Number: P0120468
Facility ID: 0285000366
Effective Date:4/7/2016

C. Emissions Unit Terms and Conditions

1. B014, Engine #7: Spark Ignition (SI) Internal Combustion Engine (ICE)

Operations, Property and/or Equipment Description:

2,370 hp 4SLB SI ICE: CAT 3608 w/catalyst

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

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	ORC 3704.03(T)	NOx emissions shall not exceed 11.42 tpy.
b	OAC rule 3745-31-05(A)(3), as effective 11/30/01	Compliance with the applicable requirements of 40 CFR Part 60, Subpart JJJJ Emissions shall not exceed: 0.72 lb/hr and 3.15 tpy of CO; 1.05 lbs/hr and 4.61 tpy of VOC; and 1.10 lb/hr and 4.84 tpy of PE See b)(2)a.
c	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/06	See b)(2)b.
d	OAC rule 3745-18-06(A)	Stationary ICE that burn only natural gas are exempt from the requirements of OAC rule 3745-18-06.
e	OAC rule 3745-17-07(A)(1)	Visible PE from the exhaust stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as specified by rule.
f	OAC rule 3745-17-11(B)(5)(b)	PE shall not exceed 0.062 lb/mmBtu of actual heat input.
g	40 CFR Part 60, Subpart JJJJ In accordance with 40 CFR 60.4230, this emissions unit is subject to the NSPS for Stationary	The exhaust emissions from this engine shall not exceed: 1.0 g/hp-hr or 82 ppmvd at 15% O ₂ of NOx

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	SI ICE. 40 CFR 60.4233(e) 40 CFR 60.4231(e)-mfg. Table 1 to Part 60, Subpart JJJJ	2.0 g/hp-hr or 270 ppmvd at 15% O ₂ of CO 0.7 g/hp-hr or 60 ppmvd at 15% O ₂ of VOC
h	40 CFR 63 Subpart ZZZZ 40 CFR 63.6590(c)(1)	A new or reconstructed area source operating in compliance with Part 60 Subpart JJJJ is the demonstration of compliance for 40 CFR 63 Subpart ZZZZ.

(2) Additional Terms and Conditions

- a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than 10 tpy. However, that rule revision has not yet been approved by 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 the OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006, version of 3745-31-05, then these emission limits/control measures no longer apply.
- b. This paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the SIP.

The BAT requirements under OAC rule 3745-31-05(A)(3) do not apply to the PE, CO, and VOC from this emissions unit since the controlled potential to emit for each is less than 10 tpy.

c) Operational Restrictions

- (1) The stationary SI ICE shall be installed, maintained and operated in a manner consistent with good air pollution control practice for minimizing emissions. The permittee shall operate and maintain the stationary SI ICE to achieve the emission standards identified in 40 CFR 60.4233(e) and found in Table 1 of NSPS Subpart JJJJ over the entire life of the engine. The air-to-fuel ratio controllers shall be set to ensure proper operation of the engine and control device and to minimize emissions.

[40 CFR 60.4234], [40 CFR 60.4243(b)(2)], and [40 CFR 60.4243(g)]

- (2) During emergency conditions the permittee may operate this engine using propane for a maximum of 100 hours/year as an alternative fuel and if records are maintained for such use. If the engine is not certified to burn propane the permittee shall conduct a

performance test to demonstrate compliance with the emission standards in 40 CFR 60.4233.

[40 CFR 60.4243(e)]

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

(1) The permittee shall maintain a record of the natural gas burned in this ICE during each calendar year. The natural gas usage can be calculated at the end of each year using the best method available to estimate the annual throughput, which might include but shall not be limited to: readings from the facility's natural gas meter, the facility's natural gas bill, the recorded or estimated hours of operation along with the manufacturer's documentation on the maximum natural gas fuel flow rate.

(2) The permittee shall maintain the following records and make them available upon request:

- a. all notifications submitted to comply with and all documentation supporting compliance with Part 60 Subpart JJJJ; and
- b. the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to §60.4243(a)(2).

[40 CFR 60.4245(a)]

(3) The permittee shall demonstrate compliance as follows:

- a. keep a maintenance plan and the records of all maintenance conducted on the engine;
- b. maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions; and
- c. conduct an initial performance test, as specified in 40 CFR 60.4244, within 1 year of engine startup and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first.

[40 CFR 60.4243(b)(2)(ii)] and [40 CFR 60.4233(e)]

e) **Reporting Requirements**

(1) The permittee shall submit notifications as required in 40 CFR Parts 60.7(a)(1) and 60.4245(c). Results from performance testing shall be submitted in accordance with Section f)(2) and the standard terms and conditions in Section A.

f) **Testing Requirements**

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

a. Emission Limitations:

1.0 g/hp-hr of NO_x or 82 ppmvd at 15% O₂
11.42 tpy

Applicable Compliance Method:

Compliance with the g/hp-hr limit shall be demonstrated by the requirements of 40 CFR 60.4244, using the applicable test methods in Table 2 to Part 60 Subpart JJJJ.

Compliance with the annual emission limitation shall be determined by multiplying the vendor supplied emission factor (0.5 g/hp-hr) by the rated engine capacity (2,370 hp) by the conversions (2.205E-03 lb/g) and (2,000 lbs/ton) by the annual operating hours.

[40 CFR 60.4233(e)], [40 CFR 60.4244], and [Table 1 to Part 60 Subpart JJJJ]

b. Emission Limitations:

2.0 g CO/hp-hr or 270 ppmvd at 15% O₂
3.15 tpy

Applicable Compliance Method:

Compliance with the g/hp-hr limit shall be demonstrated by the requirements of 40 CFR 60.4244, using the applicable test methods in Table 2 to Part 60 Subpart JJJJ.

Compliance with the annual emission limitation shall be determined by multiplying the vendor supplied emission factor (2.75 g/hp-hr) by the rated engine capacity (2,370 hp) by the conversions (2.205E-03 lb/g) and (2,000 lbs/ton) by the vendor guaranteed control efficiency (1-0.95) by the annual operating hours.

[40 CFR 60.4233(e)], [40 CFR 60.4244], and [Table 1 to Part 60 Subpart JJJJ]

c. Emission Limitations:

0.7 g VOC/hp-hr or 60 ppmvd at 15% O₂
4.61 tpy

Applicable Compliance Method:

Compliance with the g/hp-hr limit shall be demonstrated by the requirements of 40 CFR 60.4244, using the applicable test methods in Table 2 to Part 60 Subpart JJJJ.

Compliance with the annual emission limitation shall be determined by multiplying the vendor supplied emission factor (0.63 g/hp-hr) by the rated engine capacity (2,370 hp) by the conversions (2.205E-03 lb/g) and (2,000 lbs/ton) by the vendor guaranteed control efficiency (1-0.50) by the annual operating hours.

[40 CFR 60.4233(e)], [40 CFR 60.4244], and [Table 1 to Part 60 Subpart JJJJ].

- d. Emission Limitations:
0.062 lb PE/mmBtu
4.84 tpy

Applicable Compliance Method:

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

Compliance with the annual emission limitation shall be determined by multiplying the OAC rule 3745-17-11(B)(5)(b) rule limitation (0.062 lb/mmBtu) by the rated engine capacity (17.84 mmBtu/hr) by the annual operating hours and the conversion (2,000 lbs/ton).

[OAC rule 3745-17-11(B)(5)]

- e. Opacity Limitation:
Visible PE from the exhaust stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as specified by rule.

Applicable Compliance Method:

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

[OAC rule 3745-17-07(A)(1)]

- (2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
- a. Three separate test runs for each performance test is required, as specified in 40 CFR 60.8(f) and each test run must last at least 1 hour.
 - b. Each performance test must be conducted within 10% of 100% peak (or the highest achievable) load and according to the requirements in 40 CFR 60.8 and under the specific conditions that are specified by Table 2 to Part 60, Subpart JJJJ.
 - c. Performance tests cannot be conducted during periods of startup, shutdown, or malfunction, as specified in 40 CFR 60.8(c).
 - d. The emission testing shall be conducted to demonstrate compliance with the emission limitations for this engine identified in the Standards of Performance for Stationary Spark Ignition Internal Combustion Engines, Part 60, Subpart JJJJ.
 - e. The following test method(s) shall be employed, in accordance with Table 2 of Subpart JJJJ of Part 60, to demonstrate compliance with the allowable mass emission rates:
 - i. Method 1 or 1A of 40 CFR Part 60, Appendix A or ASTM Method D6522-00 to select the sampling port location and the number of traverse points.

- ii. Method 2 of 40 CFR Part 60, Appendix A or Method 19 of 40 CFR Part 60, Appendix A to determine the exhaust flowrate of the engine.
- iii. Method 3, 3A, or 3B of 40 CFR Part 60, Appendix A or ASTM Method D6522-00 to measure O₂ at the exhaust stack.
- iv. Method 4 of 40 CFR Part 60, Appendix A; or Method 320 of 40 CFR Part 63, Appendix A; or ASTM D6348-03 to measure the moisture content at the exhaust stack.
- v. Methods 7, 7A, 7C, 7D, or 7E, of 40 CFR Part 60, Appendix A to measure NO_x at the exhaust stack.
- vi. Method 10 of 40 CFR Part 60, Appendix A; or Method 320 of 40 CFR Part 63, Appendix A; or ASTM Method D6522-00; or ASTM D 6348-03 to measure CO at the exhaust stack.
- vii. Method 25A of 40 CFR Part 60, Appendix A; or Method 18 of 40 CFR Part 60, Appendix A; or ASTM D6348.03 to measure VOC at the exhaust stack.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA (alternative methods allowed per footnote to Table 2 of subpart).

- f. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast 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 Northeast District Office refusal to accept the results of the emission test(s).
 - g. Personnel from the Ohio EPA Northeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
 - h. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Northeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA Northeast District Office.
- (3) To determine compliance with the NO_x mass per unit output emission limitation, the concentration of NO_x in the engine exhaust (in ppmv) shall be converted to grams/horsepower-hour (g/hp-hr) using the following equation:

$$ER = (C_d \times 1.912 \times 10^{-3} \times Q \times T) / \text{hp-hr}$$

Where:

ER = Emission rate of NO_x in g/hp-hr.

C_d = Measured NO_x concentration, in ppmv.

1.912 × 10⁻³ = Conversion constant for ppm NO_x to g/scm at 20°C.

Q = Stack gas volumetric flow rate, in scm/hr, dry basis.

T = Time of test run, in hours.

hp-hr = Brake work of the engine, horsepower-hour.

- (4) To determine compliance with the CO mass per unit output emission limitation, the concentration of CO in the engine exhaust (in ppmv) shall be converted to g/hp-hr using the following equation:

$$ER = (C_d \times 1.164 \times 10^{-3} \times Q \times T) / \text{HP-hr}$$

Where:

ER = Emission rate of CO in g/hp-hr.

C_d = Measured CO concentration in ppmv.

1.164 × 10⁻³ = Conversion constant for ppm CO to g/scm at 20°C.

Q = Stack gas volumetric flow rate, in scm/hr, dry basis.

T = Time of test run, in hours.

hp-hr = Brake work of the engine, in horsepower-hour.

- (5) If using Method 25A, to determine compliance with the VOC mass per unit output emission limitation, the concentration of VOC in the engine exhaust (in ppmv) shall be converted to g/hp-hr using the following equation:

$$ER = (C_d \times 1.833 \times 10^{-3} \times Q \times T) / \text{hp-hr}$$

Where:

ER = Emission rate of VOC in g/hp-hr (emissions of formaldehyde should be excluded).

C_d = VOC concentration measured as propane in ppmv.

1.833 × 10⁻³ = Conversion constant for ppm VOC measured as propane, to g/scm at 20°C.

Q = Stack gas volumetric flow rate, in scm/hr, dry basis.

T = Time of test run, in hours.

hp-hr = Brake work of the engine, in horsepower-hour.

- (6) If using Method 18 of Part 60 or Method 320 of Part 63, to determine compliance with the VOC mass per unit output emission limitation, the measured VOC emissions can be corrected to account for the potential differences in measured values between these methods and Method 25A.

The results from Method 18 can be corrected for response factor differences using the following equation:

$$RF_i = C_{Mi} / C_{Ai}$$

Where:

RF_i = Response factor of compound i when measured with EPA Method 25A.
C_{Mi} = Measured concentration of compound i in ppmv as carbon.
C_{Ai} = True concentration of compound i in ppmv as carbon.

The results from Method 320 can be corrected for response factor differences using the following equation:

$$C_{i\text{corr}} = RF_i \times C_{i\text{meas}}$$

Where:

C_{i_{corr}} = Concentration of compound i corrected to the value that would have been measured by EPA Method 25A, ppmv as carbon.

C_{i_{meas}} = Concentration of compound i measured by EPA Method 320, ppmv as carbon.

The corrected VOC concentration can then be placed on a propane basis using the following equation:

$$C_{\text{Peq}} = 0.6098 \times C_{i\text{corr}}$$

Where:

C_{Peq} = Concentration of compound i in mg of propane equivalent per DSCM.

[40 CFR 60.4244] and [40 CFR 60.4243(b)]

g) Miscellaneous Requirements

(1) None.