



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL  
HAMILTON COUNTY**

**CERTIFIED MAIL**

Street Address:

50 West Town Street, Suite 700

Lazarus Gov. Center TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

Lazarus Gov. Center  
P.O. Box 1049

**Application No: 14-05984**

**Fac ID: 1431150060**

**DATE: 10/23/2007**

General Electric Aviation  
Robert Drexelius  
1 Neumann Way, M/D N123  
Cincinnati, OH 45215

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

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

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

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

Sincerely,

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

CC: USEPA

HCDES



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**Permit To Install  
Terms and Conditions**

**Issue Date: 10/23/2007  
Effective Date: 10/23/2007**

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**FINAL PERMIT TO INSTALL 14-05984**

Application Number: 14-05984  
Facility ID: 1431150060  
Permit Fee: **\$400**  
Name of Facility: General Electric Aviation  
Person to Contact: Robert Drexelius  
Address: 1 Neumann Way, M/D N123  
Cincinnati, OH 45215

Location of proposed air contaminant source(s) [emissions unit(s)]:

**1 Neumann Way  
Cincinnati, Ohio**

Description of proposed emissions unit(s):

**Installation of Two 25 MMBtu/hour Package Boilers.**

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

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Chris Korleski  
Director

## Part I - GENERAL TERMS AND CONDITIONS

### A. State and Federally Enforceable Permit-To-Install General Terms and Conditions

#### 1. Monitoring and Related Recordkeeping 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:
  - i. The date, place (as defined in the permit), and time of sampling or measurements.
  - ii. The date(s) analyses were performed.
  - iii. The company or entity that performed the analyses.
  - iv. The analytical techniques or methods used.
  - v. The results of such analyses.
  - vi. 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:
  - i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
  - ii. 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 appropriate Ohio EPA District Office or local air agency. 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 B.9 below if no deviations occurred during the quarter.

- iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted (i.e., postmarked) to the appropriate Ohio EPA District Office or local air agency 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.
  - iv. If this permit is for an emissions unit located at a Title V facility, then 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.

## **2. 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 appropriate Ohio EPA District Office or local air agency 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).

## **3. 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.

#### **4. 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.

#### **5. Severability Clause**

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.

#### **6. General Requirements**

- a. The permittee must comply with all terms and conditions of this permit. 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.

**General Electric Aviation**  
**PTI Application: 14-05984**  
**Issued: 10/23/2007**

**Facility ID: 030301019**

## **7. 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.

## **8. Federal and State Enforceability**

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any 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. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

## **9. Compliance Requirements**

- a. 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:
  - i. 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.
  - ii. 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.
  - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.

**General Electric Aviation**  
**PTI Application: 14-05984**  
**Issued: 10/23/2007**

**Facility ID: 030301019**

- iv. 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 appropriate Ohio EPA District Office or local air agency 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:
  - i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
  - ii. 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.

#### **10. Permit-To-Operate Application**

- a. If 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 the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).
- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this permit is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the source(s) covered by this permit.

#### **11. Best Available Technology**

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

#### **12. Air Pollution Nuisance**

**General Electric Aviation**  
**PTI Application: 14-05984**  
**Issued: 10/23/2007**

**Facility ID: 030301019**

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.

**General Electric Aviation**  
**PTI Application: 14-05984**  
**Issued: 10/23/2007**

**Facility ID: 030301019**

### **13. Permit-To-Install**

A permit-to-install must be obtained pursuant to OAC Chapter 3745-31 prior to "installation" of "any air contaminant source" as defined in OAC rule 3745-31-01, or "modification", as defined in OAC rule 3745-31-01, of any emissions unit included in this permit.

## **B. State Only Enforceable Permit-To-Install General Terms and Conditions**

### **1. Compliance Requirements**

The emissions unit(s) identified in this Permit shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

### **2. Reporting Requirements**

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from 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 appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

### **3. Permit Transfers**

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing

**General Electric Aviation**  
**PTI Application: 14-05984**  
**Issued: 10/23/2007**

**Facility ID: 030301019**

of any transfer of this permit.

#### **4. Authorization To Install or Modify**

If applicable, authorization to install or modify any new or existing 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 modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

#### **5. Construction of New Sources(s)**

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.

#### **6. 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.

#### **7. 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).

#### **8. Construction Compliance Certification**

**General Electric Aviation**  
**PTI Application: 14-05984**  
**Issued: 10/23/2007**

**Facility ID: 030301019**

If applicable, the applicant shall provide Ohio EPA with a written certification (see enclosed form if applicable) that the facility has been constructed in accordance with the permit-to-install application and the terms and conditions of the permit-to-install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

**9. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)**

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 (i.e., postmarked), by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

**C. Permit-To-Install Summary of Allowable Emissions**

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

SUMMARY (for informational purposes only)  
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons Per Year</u>
PE/PM10	4.38
NOx	22.0
SO2	0.14
VOC	1.20
CO	18.48

**General Electric Aviation**  
**PTI Application: 14-05984**  
**Issued: 10/23/2007**

**Facility ID: 030301019**

**Part II - FACILITY SPECIFIC TERMS AND CONDITIONS**

**A. State and Federally Enforceable Permit To Install Facility Specific Terms and Conditions**

1. The permittee may be subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR Part 63, Subpart DDDDD. U.S. EPA initially promulgated these standards on September 13, 2004, with a compliance date of September 13, 2007. On July 30, 2007, these standards were vacated by mandate of the U.S. Court of Appeals for the District of Columbia Circuit. Until such time as a MACT determination is established for affected sources in this category, the permittee shall comply with the Ohio Air Toxics Policy, pursuant to ORC 3704.03(F), for applicable emissions units in this category, as specified in Part III, Section B, of this permit.

**B. State Only Enforceable Permit To Install Facility Specific Terms and Conditions**

None

**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)****A. State and Federally Enforceable Section****I. Applicable Emissions Limitations and/or Control Requirements**

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

**Operations, Property, and/or Equipment - (B049) - 25 mmBtu/hour Natural Gas-Fired Boiler (EA-473)**

<b>Applicable Rules/Requirements</b>	<b>Applicable Emissions Limitations/Control Measures</b>
OAC rule 3745-31-05(A)(5)(b)	See term and condition A.I.2.a.
OAC rule 3745-31-05(A)(3)	Nitrogen oxide (NOx) emissions shall not exceed 0.10 pound per mmBtu of actual heat input and 11.0 tons per year (TPY). The NOx emission limitations outlined above are based on the emission unit's potential to emit (PTE). Therefore, no records are required to demonstrate compliance with these limitations.
OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack serving this emissions unit shall not exceed 20% opacity, as a six-minute average, except as specified by rule.
OAC rule 3745-17-10(B)(1)	Particulate emissions (PE) shall not exceed 0.020 pound per mmBtu of actual heat input.
OAC rule 3745-18-06	Exempt pursuant to OAC rule 3745-18-06(A). See term and condition A.II.1.
40 CFR Part 60, Subpart Dc	The emission limitations specified by this regulation are not applicable to this emission unit when firing natural gas.
OAC rule 3745-21-08(B)	See term and condition A.I.2.e.

**2. Additional Terms and Conditions**

- 2.a The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the particulate (PE), particulate matter 10 microns or less in diameter (PM10), sulfur dioxide (SO2), volatile organic compounds (VOC) and carbon monoxide (CO) emissions from this air contaminant source since the uncontrolled potential to emit for PE, PM10, SO2, VOC, and CO is less than ten tons per year.
- 2.b The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency (U.S. EPA), 40 CFR Part 60, are delegated to

Emissions Unit ID: B049

the Ohio Environmental Protection Agency (Ohio EPA).

- 2.c** The PE limitation specified in Section A.I.1 is greater than the emission unit's potential to emit. Therefore, no monitoring, record keeping, and reporting requirements are necessary to ensure ongoing compliance with this emissions limitation.
- 2.d** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by compliance with the NOx emission limitations and use of natural gas.
- 2.e** The permittee shall satisfy the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology (BAT) requirements established pursuant to OAC rule 3745-31-05(A)(3) in this permit to install. The design of the emissions unit and the technology associated with the current operating practices satisfy the BAT requirements.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. On June 24, 2003, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

## **II. Operational Restrictions**

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

## **III. Monitoring and/or Record keeping Requirements**

- 1. Pursuant to the NSPS 40 CFR Part 60.48c(g)(2), the permittee shall record and maintain records of the amount of natural gas combusted in this emissions unit during each calendar month.

## **IV. Reporting Requirements**

- 1. Pursuant to NSPS 40 CFR Part 60.48c(a), 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

Emissions Unit ID: B049

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

Reports are to be sent to:

Hamilton County Department of Environmental Services  
250 William Howard Taft Road  
Cincinnati, OH 45219

2. The permittee shall notify Hamilton County Department of Environmental Services in writing of any fuel burned in this emissions unit other than natural gas. The notification shall include a copy of such record and shall be sent to Hamilton County Department of Environmental Services within 45 days after the deviation occurs.

## V. Testing Requirements

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

a. Emissions Limitation:

Particulate emissions shall not exceed 0.020 pound per mmBtu of actual heat input.

Applicable Compliance Method:

Compliance shall be determined by multiplying the hourly gas burning capacity of the emissions unit (mm cu. ft/hr) by the AP-42, Fifth Edition, Section 1.4, Table 1.4-2 (revised 7/98) emission factor of 7.6 lbs of total particulate/mm cu. ft, and then dividing by the maximum hourly heat input of the emissions unit (mmBtu/hr).

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

b. Emissions Limitation:

Visible particulate emissions from any stack shall not exceed 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 performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

**Issued: 10/23/2007**c. Emission Limitations:

Nitrogen oxide (NOx) emissions shall not exceed 0.10 pound per mmBtu of actual heat input and 11.0 tons per year (TPY).

Applicable Compliance Method:

The NOx emission limitations listed above are based on this emissions unit's uncontrolled potential to emit. The emission limitations were based upon the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.4, Table 1.4-1 (7/98). Compliance with the lb/mmBtu emission limitation may be determined by converting the 100 lbs NOx/mm cu. ft emission factor into lb NOx/mmBtu by dividing by 1000 Btu/cu. ft. Compliance with the annual emission limitation may be demonstrated by multiplying the lb NOx/mmBtu value by the maximum rated heat input capacity of the emissions unit (in mmBtu/hr), then multiplying by 8760 hrs/yr and dividing by 2000 lbs/ton.

If required, the permittee shall demonstrate compliance with the lb/mmBtu emissions limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1- 4, and 7.

d. Emissions Limitation:

The uncontrolled potential to emit is less than 10.0 tons per year PE/PM10.

Applicable Compliance Method:

The annual PE and PM10 emission rates are based on this emission unit's uncontrolled potential to emit from the combustion of natural gas. PM10 emissions shall be assumed to be equivalent to PE. The annual PE and PM10 emission rates were calculated by the following equation using the information submitted by the permittee in PTI Application 14-05984, submitted on September 4, 2007:

$$E = \text{heat input capacity of } 25.125 \text{ mmBtu/hour} \times 0.0076 \text{ lbs PE/mmBtu per AP-42 Table 1.4-2 for natural gas combustion} \times 8760 \text{ hours}/(2000)],$$

where E = Emission Rate (tons per year).

e. Emissions Limitation:

The uncontrolled potential to emit is less than 10.0 tons per year SO2.

Issued: 10/23/2007

Applicable Compliance Method:

The annual SO<sub>2</sub> emissions rate is based on this emission unit's uncontrolled potential to emit from the combustion of natural gas. The annual SO<sub>2</sub> emissions rate was calculated by the following equation using the information submitted by the permittee in PTI Application 14-05984, submitted on September 4, 2007:

$$E = \text{heat input capacity of } 25.125 \text{ mmBtu/hour} \times 0.0006 \text{ lbs SO}_2/\text{mmBtu per AP-42 Table 1.4-2 for natural gas combustion} \times 8760 \text{ hours}/(2000)],$$

where E = Emission Rate (tons per year).

f. Emissions Limitation:

The uncontrolled potential to emit is less than 10.0 tons per year VOC.

Applicable Compliance Method:

The annual VOC emissions rate is based on this emission unit's uncontrolled potential to emit from the combustion of natural gas. The annual VOC emissions rate was calculated by the following equation using the information submitted by the permittee in PTI Application 14-05984, submitted on September 4, 2007:

$$E = \text{heat input capacity of } 25.125 \text{ mmBtu/hour} \times 0.0055 \text{ lbs VOC/mmBtu per AP-42 Table 1.4-2 for natural gas combustion} \times 8760 \text{ hours}/(2000)],$$

where E = Emission Rate (tons per year).

g. Emissions Limitation:

The uncontrolled potential to emit is less than 10.0 tons per year CO.

Applicable Compliance Method:

The annual CO emissions rate is based on this emission unit's uncontrolled potential to emit from the combustion of natural gas. The annual CO emissions rate was calculated by the following equation using the information submitted by the permittee in PTI Application 14-05984, submitted on September 4, 2007:

$$E = \text{heat input capacity of } 25.125 \text{ mmBtu/hour} \times 0.084 \text{ lbs CO/mmBtu per AP-42}$$

Emissions Unit ID: B049

Table 1.4-1 for natural gas combustion x 8760 hours/(2000)],

where E = Emission Rate (tons per year).

## **VI. Miscellaneous Requirements**

None

Issued: 10/23/2007

**B. State Only Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

**Operations, Property, and/or Equipment - (B049) - 25 mmBtu/hour Natural Gas-Fired Boiler (EA-473)**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
None	None

2. **Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

1. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic

**Issued: 10/23/2007**

compound will be less than 1.0 ton. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any pollutant that has a listed TLV to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

Issued: 10/23/2007

**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

**Operations, Property, and/or Equipment - (B050) - 25 mmBtu/hour Natural Gas-Fired Boiler (EA-474)**

Applicable Rules/Requirement	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(5)(b)	See term and condition A.I.2.a.
OAC rule 3745-31-05(A)(3)	Nitrogen oxide (NO <sub>x</sub> ) emissions shall not exceed 0.10 pound per mmBtu of actual heat input and 11.0 tons per year (TPY). The NO <sub>x</sub> emission limitations outlined above are based on the emission unit's potential to emit (PTE). Therefore, no records are required to demonstrate compliance with these limitations.
OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack serving this emissions unit shall not exceed 20% opacity, as a six-minute average, except as specified by rule.
OAC rule 3745-17-10(B)(1)	Particulate emissions (PE) shall not exceed 0.020 pound per mmBtu of actual heat input.
OAC rule 3745-18-06	Exempt pursuant to OAC rule 3745-18-06(A). See term and condition A.II.1.
40 CFR Part 60, Subpart Dc	The emission limitations specified by this regulation are not applicable to this emission unit when firing natural gas.
OAC rule 3745-21-08(B)	See term and condition A.I.2.e.

**2. Additional Terms and Conditions**

- 2.a The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the particulate (PE), particulate matter 10 microns or less in diameter (PM<sub>10</sub>), sulfur dioxide (SO<sub>2</sub>), volatile organic compounds (VOC) and carbon monoxide (CO) emissions from this air

Emissions Unit ID: B050

contaminant source since the uncontrolled potential to emit for PE, PM10, SO<sub>2</sub>, VOC, and CO is less than ten tons per year.

- 2.b** The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency (U.S. EPA), 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency (Ohio EPA).
- 2.c** The PE limitation specified in Section A.1.1 is greater than the emission unit's potential to emit. Therefore, no monitoring, record keeping, and reporting requirements are necessary to ensure ongoing compliance with this emissions limitation.
- 2.d** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by compliance with the NO<sub>x</sub> emission limitations and use of natural gas.
- 2.e** The permittee shall satisfy the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology (BAT) requirements established pursuant to OAC rule 3745-31-05(A)(3) in this permit to install. The design of the emissions unit and the technology associated with the current operating practices satisfy the BAT requirements.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. On June 24, 2003, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

## **II. Operational Restrictions**

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

## **III. Monitoring and/or Record keeping Requirements**

- 1. Pursuant to the NSPS 40 CFR Part 60.48c(g)(2), the permittee shall record and maintain records of the amount of natural gas combusted in this emissions unit during each calendar month.

## **IV. Reporting Requirements**

- 1. Pursuant to NSPS 40 CFR Part 60.48c(a), the permittee is required to report the following information at the appropriate times (if the information has not already been

**Issued: 10/23/2007**

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:

Hamilton County Department of Environmental Services  
250 William Howard Taft Road  
Cincinnati, OH 45219

2. The permittee shall notify Hamilton County Department of Environmental Services in writing of any fuel burned in this emissions unit other than natural gas. The notification shall include a copy of such record and shall be sent to Hamilton County Department of Environmental Services within 45 days after the deviation occurs.

## **V. Testing Requirements**

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

- a. Emissions Limitation:

Particulate emissions shall not exceed 0.020 pound per mmBtu of actual heat input.

Applicable Compliance Method:

Compliance shall be determined by multiplying the hourly gas burning capacity of the emissions unit (mm cu. ft/hr) by the AP-42, Fifth Edition, Section 1.4, Table 1.4-2 (revised 7/98) emission factor of 7.6 lbs of total particulate/mm cu. ft, and then dividing by the maximum hourly heat input of the emissions unit (mmBtu/hr).

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

Emissions Unit ID: B050

b. Emissions Limitation:

Visible particulate emissions from any stack shall not exceed 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 performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

**Issued: 10/23/2007**c. Emission Limitations:

Nitrogen oxide (NO<sub>x</sub>) emissions shall not exceed 0.10 pound per mmBtu of actual heat input and 11.0 tons per year (TPY).

Applicable Compliance Method:

The NO<sub>x</sub> emission limitations listed above are based on this emissions unit's uncontrolled potential to emit. The emission limitations were based upon the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.4, Table 1.4-1 (7/98). Compliance with the lb/mmBtu emission limitation may be determined by converting the 100 lbs NO<sub>x</sub>/mm cu. ft emission factor into lb NO<sub>x</sub>/mmBtu by dividing by 1000 Btu/cu. ft. Compliance with the annual emission limitation may be demonstrated by multiplying the lb NO<sub>x</sub>/mmBtu value by the maximum rated heat input capacity of the emissions unit (in mmBtu/hr), then multiplying by 8760 hrs/yr and dividing by 2000 lbs/ton.

If required, the permittee shall demonstrate compliance with the lb/mmBtu emissions limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1- 4, and 7.

d. Emissions Limitation:

The uncontrolled potential to emit is less than 10.0 tons per year PE/PM10.

Applicable Compliance Method:

The annual PE and PM10 emission rates are based on this emission unit's uncontrolled potential to emit from the combustion of natural gas. PM10 emissions shall be assumed to be equivalent to PE. The annual PE and PM10 emission rates were calculated by the following equation using the information submitted by the permittee in PTI Application 14-05984, submitted on September 4, 2007:

$$E = \text{heat input capacity of } 25.125 \text{ mmBtu/hour} \times 0.0076 \text{ lbs PE/mmBtu per AP-42 Table 1.4-2 for natural gas combustion} \times 8760 \text{ hours}/(2000)],$$

where E = Emission Rate (tons per year).

e. Emissions Limitation:

Issued: 10/23/2007

The uncontrolled potential to emit is less than 10.0 tons per year SO<sub>2</sub>.

Applicable Compliance Method:

The annual SO<sub>2</sub> emissions rate is based on this emission unit's uncontrolled potential to emit from the combustion of natural gas. The annual SO<sub>2</sub> emissions rate was calculated by the following equation using the information submitted by the permittee in PTI Application 14-05984, submitted on September 4, 2007:

$$E = \text{heat input capacity of } 25.125 \text{ mmBtu/hour} \times 0.0006 \text{ lbs SO}_2/\text{mmBtu per AP-42 Table 1.4-2 for natural gas combustion} \times 8760 \text{ hours}/(2000)],$$

where E = Emission Rate (tons per year).

f. Emissions Limitation:

The uncontrolled potential to emit is less than 10.0 tons per year VOC.

Applicable Compliance Method:

The annual VOC emissions rate is based on this emission unit's uncontrolled potential to emit from the combustion of natural gas. The annual VOC emissions rate was calculated by the following equation using the information submitted by the permittee in PTI Application 14-05984, submitted on September 4, 2007:

$$E = \text{heat input capacity of } 25.125 \text{ mmBtu/hour} \times 0.0055 \text{ lbs VOC/mmBtu per AP-42 Table 1.4-2 for natural gas combustion} \times 8760 \text{ hours}/(2000)],$$

where E = Emission Rate (tons per year).

g. Emissions Limitation:

The uncontrolled potential to emit is less than 10.0 tons per year CO.

Applicable Compliance Method:

The annual CO emissions rate is based on this emission unit's uncontrolled potential to emit from the combustion of natural gas. The annual CO emissions rate was calculated by the following equation using the information submitted by the permittee in PTI Application 14-05984, submitted on September 4, 2007:

Emissions Unit ID: B050

E = heat input capacity of 25.125 mmBtu/hour x 0.084 lbs CO/mmBtu per AP-42 Table 1.4-1 for natural gas combustion x 8760 hours/(2000)],

where E = Emission Rate (tons per year).

## **VI. Miscellaneous Requirements**

None

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**B. State Only Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

**Operations, Property, and/or Equipment - (B050) - 25 mmBtu/hour Natural Gas-Fired Boiler (EA-474)**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
None	None

2. **Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

1. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic

Emissions Unit ID: B050

**Issued: 10/23/2007**

compound will be less than 1.0 ton. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as

Emissions Unit ID: B050

**Issued: 10/23/2007**

defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any pollutant that has a listed TLV to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

Emissions Unit ID: B050

SIC CODE 3724 SCC CODE 1-01-006-02 EMISSIONS UNIT ID B049  
 EMISSIONS UNIT DESCRIPTION 25 mmBtu/hour Natural Gas-Fired Boiler (EA-473)  
 DATE INSTALLED new

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	attainment	0.0076 lb/mmbtu	0.84	0.02 lb/mmbtu	2.19
PM <sub>10</sub>	nonattainment (as PM2.5)	0.0076 lb/mmbtu	0.84	0.02 lb/mmbtu	2.19
Sulfur Dioxide	attainment	0.0006 lb/mmBtu	0.07	0.0006 lb/mmBtu	0.07
Organic Compounds	nonattainment	0.0055 lb/mmBtu	0.6	0.0055 lb/mmBtu	0.6
Nitrogen Oxides	attainment	0.10 lb/mmBtu	11	0.10 lb/mmBtu	11
Carbon Monoxide	attainment	0.084 lb/mmBtu	9.24	0.084 lb/mmBtu	9.24
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? 40 CFR 60      NESHAP?      PSD?      OFFSET POLICY?  
 Subpart Dc

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

**BAT only applicable to NOx; other criteria pollutants <10 TPY PTE; BAT will be compliance with emission limitations at PTE and use of natural gas.**

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? No - <1 TPY

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$Na

**TOXIC AIR CONTAMINANTS**

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED\*? \_\_\_\_\_ YES X NO

IDENTIFY THE AIR CONTAMINANTS: NA

**General Electric Aviation**  
**PTI Application: 14-05984**  
**Issued: 10/23/2007**

**Facility ID: 030301019**

Emissions Unit ID: B050

SIC CODE 3724 SCC CODE 1-01-006-02 EMISSIONS UNIT ID B050  
 EMISSIONS UNIT DESCRIPTION 25 mmBtu/hour Natural Gas-Fired Boiler (EA-474)  
 DATE INSTALLED new

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	attainment	0.0076 lb/mmbtu	0.84	0.02 lb/mmbtu	2.19
PM <sub>10</sub>	nonattainment (as PM2.5)	0.0076 lb/mmbtu	0.84	0.02 lb/mmbtu	2.19
Sulfur Dioxide	attainment	0.0006 lb/mmBtu	0.07	0.0006 lb/mmBtu	0.07
Organic Compounds	nonattainment	0.0055 lb/mmBtu	0.6	0.0055 lb/mmBtu	0.6
Nitrogen Oxides	attainment	0.10 lb/mmBtu	11	0.10 lb/mmBtu	11
Carbon Monoxide	attainment	0.084 lb/mmBtu	9.24	0.084 lb/mmBtu	9.24
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? 40 CFR 60      NESHAP?      PSD?      OFFSET POLICY?  
 Subpart Dc

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

**BAT only applicable to NOx; other criteria pollutants <10 TPY PTE; BAT will be compliance with emission limitations at PTE and use of natural gas.**

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? No - <1 TPY

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$Na

**TOXIC AIR CONTAMINANTS**

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED\*? \_\_\_\_\_ YES X NO

IDENTIFY THE AIR CONTAMINANTS: NA