



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

5/9/2013

Certified Mail

Ms. Joanne Reinhold  
General Electric Aviation, Evendale Plant  
One Neumann Way  
Mail Drop N123  
Cincinnati, OH 45215

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

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL  
Facility ID: 1431150060  
Permit Number: P0112873  
Permit Type: Administrative Modification  
County: Hamilton

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**

**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](http://www.ohioairquality.org/clean_air)

## **How to give us feedback on your permitting experience**

Please complete a survey at [www.epa.ohio.gov/dapc/permitsurvey.aspx](http://www.epa.ohio.gov/dapc/permitsurvey.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](http://www.epa.ohio.gov/dapc) by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

If you have any questions, please contact Southwest Ohio Air Quality Agency at (513)946-7777 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,

*Michael W. Ahern*

Michael W. Ahern, Manager

Permit Issuance and Data Management Section, DAPC

Cc: U.S. EPA  
SWOQA; Indiana; Kentucky



## Response to Comments

Facility ID:	1431150060
Facility Name:	General Electric Aviation, Evendale Plant
Facility Description:	Manufactures turbine engines and parts
Facility Address:	One Neumann Way Cincinnati, OH 45215 Hamilton County
Permit:	P0112873, Permit-To-Install - Administrative Modification
A public notice for the draft permit issuance was published in the Ohio EPA Weekly Review and appeared in the The Cincinnati Enquirer on 03/25/2013. The comment period ended on 04/24/2013.	
Hearing date (if held)	
Hearing Public Notice Date (if different from draft public notice)	

The following comments were received during the comment period specified. Ohio EPA reviewed and considered all comments received during the public comment period. By law, Ohio EPA has authority to consider specific issues related to protection of the environment and public health. Often, public concerns fall outside the scope of that authority. For example, concerns about zoning issues are addressed at the local level. Ohio EPA may respond to those concerns in this document by identifying another government agency with more direct authority over the issue.

In an effort to help you review this document, the questions are grouped by topic and organized in a consistent format. PDF copies of the original comments in the format submitted are available upon request.

**1. Topic: None**

- a. Comment: None
- b. Response: None





**FINAL**

**Division of Air Pollution Control**  
**Permit-to-Install**  
for  
General Electric Aviation, Evendale Plant

Facility ID:	1431150060
Permit Number:	P0112873
Permit Type:	Administrative Modification
Issued:	5/9/2013
Effective:	5/9/2013





**Division of Air Pollution Control**  
**Permit-to-Install**  
for  
General Electric Aviation, Evendale Plant

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**Final Permit-to-Install**  
General Electric Aviation, Evendale Plant  
**Permit Number:** P0112873  
**Facility ID:** 1431150060  
**Effective Date:** 5/9/2013

## Authorization

Facility ID: 1431150060  
Facility Description: Manufactures turbine engines and parts  
Application Number(s): A0046737  
Permit Number: P0112873  
Permit Description: Administrative modification requested by the facility in order to correct manufacturer-supplied emissions factors for NOx and CO for the preheaters.  
Permit Type: Administrative Modification  
Permit Fee: \$1,200.00  
Issue Date: 5/9/2013  
Effective Date: 5/9/2013

This document constitutes issuance to:

General Electric Aviation, Evendale Plant  
One Neumann Way  
Cincinnati, OH 45215

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

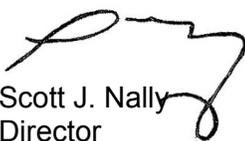
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

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

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

  
Scott J. Nally  
Director



## Authorization (continued)

Permit Number: P0112873  
 Permit Description: Administrative modification requested by the facility in order to correct manufacturer-supplied emissions factors for NOx and CO for the preheaters.

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

**Group Name: Preheaters**

<b>Emissions Unit ID:</b>	<b>B026</b>
Company Equipment ID:	EA-212
Superseded Permit Number:	14-05794
General Permit Category andType:	Not Applicable
<b>Emissions Unit ID:</b>	<b>B027</b>
Company Equipment ID:	EA-213
Superseded Permit Number:	14-05794
General Permit Category andType:	Not Applicable
<b>Emissions Unit ID:</b>	<b>B028</b>
Company Equipment ID:	EA-214
Superseded Permit Number:	14-05794
General Permit Category andType:	Not Applicable
<b>Emissions Unit ID:</b>	<b>B029</b>
Company Equipment ID:	EA-215
Superseded Permit Number:	14-05794
General Permit Category andType:	Not Applicable
<b>Emissions Unit ID:</b>	<b>B043</b>
Company Equipment ID:	EA-212-A
Superseded Permit Number:	14-05794
General Permit Category andType:	Not Applicable
<b>Emissions Unit ID:</b>	<b>B044</b>
Company Equipment ID:	EA-212-B
Superseded Permit Number:	14-05794
General Permit Category andType:	Not Applicable

**Group Name: Test Cells**

<b>Emissions Unit ID:</b>	<b>F019</b>
Company Equipment ID:	EA-210
Superseded Permit Number:	14-05794
General Permit Category andType:	Not Applicable
<b>Emissions Unit ID:</b>	<b>F020</b>
Company Equipment ID:	EA-211
Superseded Permit Number:	14-05794
General Permit Category andType:	Not Applicable



**Final Permit-to-Install**  
General Electric Aviation, Evendale Plant  
**Permit Number:** P0112873  
**Facility ID:** 1431150060  
**Effective Date:**5/9/2013

## **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) 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.

#### **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 Southwest Ohio Air Quality Agency.



- (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 Southwest Ohio Air Quality 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 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 (i.e., postmarked) to the Southwest Ohio Air Quality 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.
  - (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 Southwest Ohio Air Quality 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).

## **6. Compliance Requirements**

- a) 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.
- b) 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.



- c) 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.
- d) The permittee shall submit progress reports to the Southwest Ohio Air Quality 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:
  - (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 Southwest Ohio Air Quality 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 Southwest Ohio Air Quality 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.)

## **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).

## **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 party 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 Ohio EPA's "Air Services" along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update will constitute notifying of the permanent shutdown of the affected emissions unit(s).



- 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.

No emissions unit certified by the authorized official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

- 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 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).

## **13. Construction Compliance Certification**

The applicant shall identify the following dates in the online 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 (i.e., postmarked), 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**  
General Electric Aviation, Evendale Plant  
**Permit Number:** P0112873  
**Facility ID:** 1431150060  
**Effective Date:**5/9/2013

## **B. Facility-Wide Terms and Conditions**



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 following emissions units contained in this permit are subject to 40 CFR Part 63, Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants (NESHAP) Industrial, Commercial, and Institutional Boilers and Process heaters: B026, B027, B028, B029, B043, B044. The complete NESHAP requirements, including the NESHAP General Provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website <http://www.ecfr.gov> or by contacting the appropriate Ohio EPA District office or local air agency.

The permittee shall comply with all applicable requirements of 40 CFR Part 63, Subpart DDDDD. The permittee shall also comply with all the applicable requirements of 40 CFR Part 63, Subpart A (General Provisions) as identified in Table 10 of 40 CFR Part 63, Subpart DDDDD. Compliance with all applicable requirements shall be achieved by the dates set forth in 40 CFR Part 63, Subpart DDDDD and Subpart A.



**Final Permit-to-Install**  
General Electric Aviation, Evendale Plant  
**Permit Number:** P0112873  
**Facility ID:** 1431150060  
**Effective Date:**5/9/2013

## **C. Emissions Unit Terms and Conditions**



**1. Emissions Unit Group -Preheaters: B026,B027,B028,B029,B043,B044,**

<b>EU ID</b>	<b>Operations, Property and/or Equipment Description</b>
B026	87.5 mmBtu/hr natural gas, indirect-fired air preheater
B027	87.5 mmBtu/hr natural gas, indirect-fired air preheater
B028	87.5 mmBtu/hr natural gas, indirect-fired air preheater
B029	87.5 mmBtu/hr natural gas, indirect-fired air preheater
B043	23.5 mmBtu/hr natural gas, indirect-fired air preheater
B044	23.5 mmBtu/hr natural gas, indirect-fired air preheater

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) g)(1).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Nitrogen oxides (NOx) emissions shall not exceed 0.14 pound per mmBtu of actual heat input.*  Carbon monoxide (CO) emissions shall not exceed 0.17 pound per mmBtu of actual heat input.*  Organic compound (OC) emissions shall not exceed 0.011 pound per mmBtu of actual heat input.*  Particulate emissions (PE) and particulate matter less than 10 microns in diameter (PM10) shall not exceed 0.002 pound per mmBtu of actual heat input.*  Sulfur dioxide (SO2) emissions shall not exceed 0.0006 pound per mmBtu of actual heat input.*  *The emission limitations outlined above are based on the emission unit's potential



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>to emit (PTE). Therefore, no records are required to demonstrate compliance with these limits.</p> <p>Visible particulate emissions from any stack shall not exceed 10 percent opacity, as a six-minute average.</p> <p>The requirements of this also include compliance with the requirements of OAC rule 3745-31-05(D), 40 CFR Part 63, Subpart DDDDD, and 40 CFR Part 63, Subpart A.</p>
b.	OAC rule 3745-31-05(D)  <i>Synthetic Minor to Avoid Non Attainment New Source Review and Prevention of Significant Deterioration</i>	See b)(2)a.
c.	OAC rule 3745-17-07(A)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-17-10(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
e.	40 CFR Part 63, Subpart DDDDD [40 CFR 63.7480-7575]  In accordance with 63.7490 and 63.7499, the emissions units are existing process heaters designed to burn gas 1 fuels and are subject to the work practice standards specified in this rule.]	Table 3 to 40 CFR Part 63, Subpart DDDDD – Work Practice Standards [40 CFR 63.7500].  Pursuant to 40 CFR 63.7495(b), the permittee shall comply with this subpart no later than January 31, 2016, except as provided in 63.6(i).
f.	40 CFR Part 63, Subpart A (40 CFR 63.7505)	Table 10 to 40 CFR Part 63, Subpart DDDDD – Applicability of General Provisions (Subpart A) to Subpart DDDDD shows which parts of the General Provisions in 40 CFR Part 63.1-15 apply.



(2) Additional Terms and Conditions

- a. The maximum total annual emissions from emissions units B026 (87.5 mmBtu/hr natural gas, indirect-fired air preheater), B027 (87.5 mmBtu/hr natural gas, indirect-fired air preheater), B028 (87.5 mmBtu/hr natural gas, indirect-fired air preheater), B029 (87.5 mmBtu/hr natural gas, indirect-fired air preheater), B043 (23.5 mmBtu/hr natural gas, indirect-fired air preheater), B044 (23.5 mmBtu/hr natural gas, indirect-fired air preheater), F019 (Engine and Component Test Cell A-18), and F020 (Engine and Component Test Cell A-19), combined, shall not exceed the following emission limitations based upon a rolling, 12-month summation of the monthly emissions:

39.9 tons per year NO<sub>x</sub>;

99.9 tons per year CO;

19.8 tons per year OC;

9.76 tons per year PE/PM<sub>10</sub>; and

2.49 tons per year SO<sub>2</sub>.

The annual emission limitations specified in this permit are based on the permittee's projected needs for testing engines in various ranges of operation. The permittee may adjust the number of hours of testing and fuel amounts used as long as the annual emission limitations specified in this permit are not exceeded.

The permittee has existing records to demonstrate compliance with the rolling, 12-month emissions limitations upon issuance of this permit, therefore first year monthly emission limitations are not necessary.

- b. Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by compliance with the emission limitations and visible emission limitations.

c) Operational Restrictions

- (1) See 40 CFR Part 63, Subpart DDDDD (40 CFR 63.7480-7575) for applicable operating restrictions and work practices.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain monthly records of the following information in order to monitor compliance with the rolling, 12-month summation emission limitations:
- a. the total natural gas usage, in mmscf or pounds, for this emissions unit;
- b. the total emissions, in tons, for NO<sub>x</sub>, CO, OC, PE/PM<sub>10</sub>, and SO<sub>2</sub>, for this emissions unit;



- c. the total emissions, in tons, for NO<sub>x</sub>, CO, OC, PE/PM<sub>10</sub>, and SO<sub>2</sub>, for emission units B026, B027, B028, B029, B043, B044, F019, and F020, combined; and
    - d. the updated rolling, 12-month summation emissions total, in tons, for NO<sub>x</sub>, CO, OC, PE/PM<sub>10</sub>, and SO<sub>2</sub> for emission units B026, B027, B028, B029, B043, B044, F019, and F020, combined (the total amount of emissions for the current month plus the total amount of emissions for the previous eleven calendar months).
  - (2) See 40 CFR Part 63, Subpart DDDDD (40 CFR 63.7480-7575) for applicable monitoring and record keeping requirements.
- e) Reporting Requirements
  - (1) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
    - a. any exceedances of the rolling, 12-month emission limitations for NO<sub>x</sub>, CO, OC, PE/PM<sub>10</sub>, and SO<sub>2</sub> for emissions units B026, B027, B028, B029, B043, B044, F019, and F020, combined, specified in b)(2)a.

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

  - (2) The permittee shall submit annual reports that list the monthly emission totals and the rolling, 12-month summations for NO<sub>x</sub>, CO, OC, PE/PM<sub>10</sub>, and SO<sub>2</sub> for emission units B026, B027, B028, B029, B043, B044, F019, and F020, combined. These reports shall be submitted by January 31 of each year and cover the previous calendar year's operation.
  - (3) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
  - (4) See 40 CFR Part 63, Subpart DDDDD (40 CFR 63.7480-7575) for applicable reporting requirements.
- f) Testing Requirements
  - (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
    - a. Emission Limitations:
      - 0.14 pound NO<sub>x</sub> per mmBtu
      - 0.17 pound CO per mmBtu
      - 0.011 pound OC per mmBtu



0.002 pound PE/PM10 per mmBtu

0.0006 pound SO<sub>2</sub> per mmBtu

Applicable Compliance Method:

The emission limitations specified above are based upon the emission unit's potential to emit.

The pound per mmBtu OC, PE/PM10, and SO<sub>2</sub> emissions limitations are based upon the emission factors found in AP-42, Fifth Edition, Section 1.4, Natural Gas Combustion (revised 7/1998) and the AP-42 conversion factor for the heat content of natural gas at 1,020 Btu/scf.

The pound per mmBtu NO<sub>x</sub> and CO emissions limitations are based upon the manufacturer guaranteed emissions factors for this emissions unit.

If required, the permittee shall demonstrate compliance with these emission limitations through emission testing performed in accordance with the appropriate methods found in 40 CFR Part 60, Appendix A, or other U.S. EPA recognized test methods, with prior approval from the Ohio EPA.

b. Emission Limitations:

The total annual emissions from emissions units B026, B027, B028, B029, B043, B044, F019, and F020, combined, as rolling, 12-month summations:

39.9 tons per year NO<sub>x</sub>;

99.9 tons per year CO;

19.8 tons per year OC;

9.76 tons per year PE/PM10; and

2.49 tons per year SO<sub>2</sub>.

Applicable Compliance Method:

Compliance with the emission limitations specified above shall be determined by the record keeping requirements specified in d)(1).

c. Emission Limitation:

Visible particulate emissions from any stack shall not exceed 10 percent opacity, as a six-minute average.



Applicable Compliance Method:

Compliance with the stack visible particulate emissions limitation shall be determined through visible emissions observations performed in accordance with U.S. EPA Method 9, 40 CFR Part 60, Appendix A.

No visible emissions observations are specifically required to demonstrate compliance with this emission limitation but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A).

g) Miscellaneous Requirements

- (1) Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the increase in emissions due to the modification(s) to the emissions unit was less than 1 ton per year of each toxic pollutant that has a listed Threshold Limit Value (TLV), as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices").



**2. Emissions Unit Group -Test Cells: F019,F020,**

EU ID	Operations, Property and/or Equipment Description
F019	Engine and Component Test Cell A-18
F020	Engine and Component Test Cell A-19

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	<p>Nitrogen oxides (NOx) emissions shall not exceed 5.0 pounds per mmBtu of actual heat input.*</p> <p>Carbon monoxide (CO) emissions shall not exceed 7.40 pounds per mmBtu of actual heat input.*</p> <p>Organic compound (OC) emissions shall not exceed 3.13 pounds per mmBtu or actual heat input.*</p> <p>Particulate emissions (PE) and particulate matter less than 10 microns in diameter (PM10) shall not exceed 0.71 pound per mmBtu of actual heat input.*</p> <p>Sulfur dioxide (SO2) emissions shall not exceed 0.44 pound per mmBtu of actual heat input.*</p> <p>*The 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 limits.</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D).
b.	OAC rule 3745-31-05(D)  <i>Synthetic Minor to Avoid Non Attainment New Source Review and Prevention of Significant Deterioration</i>	See b)(2)a.
c.	40 CFR Part 63, Subpart P PPPP	See b)(2)b.

(2) Additional Terms and Conditions

- a. The maximum total annual emissions from emissions units B026 (87.5 mmBtu/hr natural gas, indirect-fired air preheater), B027 (87.5 mmBtu/hr natural gas, indirect-fired air preheater), B028 (87.5 mmBtu/hr natural gas, indirect-fired air preheater), B029 (87.5 mmBtu/hr natural gas, indirect-fired air preheater), B043 (23.5 mmBtu/hr natural gas, indirect-fired air preheater), B044 (23.5 mmBtu/hr natural gas, indirect-fired air preheater), F019 (Engine and Component Test Cell A-18), and F020 (Engine and Component Test Cell A-19), combined, shall not exceed the following emission limitations based upon a rolling, 12-month summation of the monthly emissions:

- 39.9 tons per year NO<sub>x</sub>;
- 99.9 tons per year CO;
- 19.8 tons per year OC;
- 9.76 tons per year PE/PM<sub>10</sub>; and
- 2.49 tons per year SO<sub>2</sub>.

The annual emission limitations specified in this permit are based on the permittee's projected needs for testing engines in various ranges of operation. The permittee may adjust the number of hours of testing and fuel amounts used as long as the annual emission limitations specified in this permit are not exceeded.

The permittee has existing records to demonstrate compliance with the rolling, 12-month emissions limitations upon issuance of this permit, therefore first year monthly emission limitations are not necessary.

- b. As defined in 40 CFR 63.9290, the General Electric Aviation – Evendale facility is identified as an existing affected source under 40 CFR Part 63, Subpart P PPPP. As provided for under 40 CFR 63.9290(b), as an existing affected source, the facility is specifically exempt from the requirements of 40 CFR Part 63, Subpart A



and Subpart P. This emissions unit is part of the existing affected source and also is exempt from the requirements of 40 CFR Part 63, Subpart A and Subpart P. For the purpose of this permit to install action, this modification does not trigger the definition of reconstruction under 40 CFR Part 63; therefore, this emissions unit is still considered exempt from the requirements of 40 CFR Part 63.

- c. Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by compliance with the emission limitations.
- c) Operational Restrictions
  - (1) None.
- d) Monitoring and/or Recordkeeping Requirements
  - (1) The permittee shall calculate the NO<sub>x</sub>, CO, OC, SO<sub>2</sub>, and PE/PM<sub>10</sub> emissions from each engine test in this emissions unit by employing either the "Fuel Flow or Time at 3-Band Throttle Settings" method or the "Instantaneous Emissions Tracking" method developed by General Electric Aircraft Engines.
  - (2) The permittee shall collect and record the following information monthly when the "Fuel Flow or Time at 3-Band Throttle Settings" methods for calculating NO<sub>x</sub>, CO, OC, SO<sub>2</sub>, and PE/PM<sub>10</sub> emissions from an engine test are used:
    - a. the date each engine test was performed;
    - b. the type of engine that was tested;
    - c. the type(s) and amount(s) of fuel used during each test;
    - d. the total hours of engine testing;
    - e. the total NO<sub>x</sub>, CO, OC, SO<sub>2</sub>, and PE/PM<sub>10</sub> emitted during each test (by employing the predefined emission curves for the type of engine being tested); and
    - f. the total monthly NO<sub>x</sub>, CO, OC, SO<sub>2</sub>, and PE/PM<sub>10</sub> emissions, in tons (the summation of the emission totals contained in line e for all tests performed during the month).
  - (3) The permittee shall collect and record the following information when the "Instantaneous Emissions Tracking" system for calculating NO<sub>x</sub>, CO, OC, SO<sub>2</sub>, and PE/PM<sub>10</sub> emissions from an engine test is used:
    - a. the date each engine test was performed;
    - b. the type of engine that was tested;
    - c. the type(s) and amount(s) of fuel used during each test;



- d. the total hours of engine testing;
  - e. the total NO<sub>x</sub>, CO, OC, SO<sub>2</sub>, and PE/PM<sub>10</sub> emitted during each test (by employing the predefined emission curves for the type of engine being tested); and
  - f. the total monthly NO<sub>x</sub>, CO, OC, SO<sub>2</sub>, and PE/PM<sub>10</sub> emissions, in tons (the summation of the emission totals contained in line e for all tests performed during the month).
- (4) The permittee shall maintain monthly records of the following information in order to monitor compliance with the rolling, 12-month summation emission limitations:
- a. the total emissions, in tons, for NO<sub>x</sub>, CO, OC, PE/PM<sub>10</sub>, and SO<sub>2</sub>, for this emissions unit,
  - b. the total emissions, in tons, for NO<sub>x</sub>, CO, OC, PE/PM<sub>10</sub>, and SO<sub>2</sub>, for emission units B026, B027, B028, B029, B043, B044, F019, and F020, combined, and
  - c. the updated rolling, 12-month summation emissions total, in tons, for NO<sub>x</sub>, CO, OC, PE/PM<sub>10</sub>, and SO<sub>2</sub> for emission units B026, B027, B028, B029, B043, B044, F019, and F020, combined (the total amount of emissions for the current month plus the total amount of emissions for the previous eleven calendar months).
- e) Reporting Requirements
- (1) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
- a. any exceedances of the rolling, 12-month emission limitations for NO<sub>x</sub>, CO, OC, PE/PM<sub>10</sub>, and SO<sub>2</sub> for emissions units B026, B027, B028, B029, B043, B044, F019, and F020, combined, specified in b)(2)a.
- The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.
- (2) The permittee shall submit annual reports that list the monthly emission totals and the rolling, 12-month summations for NO<sub>x</sub>, CO, OC, PE/PM<sub>10</sub>, and SO<sub>2</sub> for emission units B026, B027, B028, B029, B043, B044, F019, and F020, combined. These reports shall be submitted by January 31 of each year and cover the previous calendar year's operation.
- (3) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.



f) Testing Requirements

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

a. Emission Limitations:

5.0 pounds NO<sub>x</sub> per mmBtu

7.40 pounds CO per mmBtu

3.13 pounds OC per mmBtu

0.71 pound PE/PM<sub>10</sub> per mmBtu

0.44 pound SO<sub>2</sub> per mmBtu

Applicable Compliance Method:

The emission limitations specified above are based upon the emission unit's potential to emit, the permittee-supplied emission factors, and the operational parameters as provided in the PTI application 14-05794, submitted December 12, 2005.

If required, the permittee shall demonstrate compliance with these emission limitations through emission testing performed in accordance with the appropriate methods found in 40 CFR Part 60, Appendix A.

b. Emission Limitations:

The total annual emissions from emissions units B026, B027, B028, B029, B043, B044, F019, and F020, combined, as rolling, 12-month summations:

39.9 tons per year NO<sub>x</sub>;

99.9 tons per year CO;

19.8 tons per year OC;

9.76 tons per year PE/PM<sub>10</sub>; and

2.49 tons per year SO<sub>2</sub>.

Applicable Compliance Method:

Compliance with the emission limitations specified above shall be determined by the record keeping requirements specified in d)(4).



g) Miscellaneous Requirements

- (1) Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the increase in emissions due to the modification(s) to the emissions unit was less than 1 ton per year of each toxic pollutant that has a listed Threshold Limit Value (TLV), as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices").