



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

3/7/2013

Certified Mail

Carl Trotter  
General Electric Aircraft Engines: Peebles Facility  
1200 Jaybird Road  
Peebles, OH 45660

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL  
Facility ID: 0701000001  
Permit Number: P0109999  
Permit Type: Initial Installation  
County: Adams

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

Dear Permit Holder:

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

- **How to appeal this permit**
- **How to save money, reduce pollution and reduce energy consumption**
- **How to give us feedback on your permitting experience**
- **How to get an electronic copy of your permit**

**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 Portsmouth City Health Dept., Air Pollution Unit at (740)353-5156 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,



Michael W. Ahern, Manager

Permit Issuance and Data Management Section, DAPC

Cc: U.S. EPA  
Portsmouth; Kentucky; West Virginia



## Response to Comments

Facility ID:	0701000001
Facility Name:	General Electric Aircraft Engines: Peebles Facility
Facility Description:	The GEAE Peebles site performs certification testing for aircraft engines.
Facility Address:	1200 Jaybird Road Peebles, OH 45660 Adams County
Permit:	P0109999, Permit-To-Install - Initial Installation
A public notice for the draft permit issuance was published in the Ohio EPA Weekly Review and appeared in the The Peoples Defender on 01/09/2013. The comment period ended on 02/08/2013.	
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: USEPA Region V comments**

- a. Comment: The draft permit on page 15 of 20 states that Best Available Control Technology (BACT) for Nitrogen Oxides and Carbon Monoxide has been determined to be no control. 40 C.F.R. 52.21 and Ohio Administrative Code (OAC) 3745-31-(01)S state that if control technology is technically or economically infeasible, a work practice or operational standard (or combination) be employed to satisfy BACT requirements. The permit does not identify any work practice or operational standards in place to satisfy the requirement for BACT. Please specify what will be BACT at GEAE.
  
- b. Response: The federal register stated that USEPA evaluated HAP control measures at existing engine test cells and stands. Some of these technologies are also CO control measures, and some of the factors effecting technical feasibility for HAPs would apply for NOx and CO. USEPA found that no existing test stands at major sources are equipped with emission control technologies, and no control was determined to be the MACT floor. The RBLC review also yielded no add-on control for the jet engine test stands and similar sources permitted in the Clearinghouse. For their PSD applications in 1994, 2005 and 2007, GE evaluated many NO<sub>x</sub> and CO control technologies in support of the application for four new open air test cells and one enclosed engine test cell. No control technologies for NO<sub>x</sub> or CO were found to be technically feasible, and there have not been any real changes in the field since that time. Therefore, BACT has been determined to be no add-on control for NO<sub>x</sub> and CO emissions.



- c. Comment: The draft permit at page 15 of 20 states that pursuant to OAC 3745-17-11(A)(1)(m) the emission unit is exempt from restrictions on Particulate Emissions (PE). It appears that this exemption is conflicting with the restriction on PE and Particulate Matter below 10 micrometers pursuant to OAC 3745-31-05(D). Please clarify.
- d. Response: In accordance with 3745-17-11(A)(1)(m), the rule (3745-17-11 Restrictions on particulate emissions from industrial processes) does not apply to jet engine test cells and stands. However, because an emission unit is not applicable or exempt to OAC rule 3745-17-11, does not also make it exempt from evaluating the potential to trigger other requirements such as PSD or evaluating BAT for PM. In this case, the 0.9 tpy limit in accordance with 3745-31-05(D) establishes a federally enforceable limit to less than the 15 tpy PSD threshold.
- e. Comment: The draft permit on page 16 of 20 specifies a minimum data capture rate of 95 percent. While occasional failures in monitoring equipment may occur, GEAE is expected to be in compliance with its monitoring requirements at all times. In the instance of the occasional failure to capture data, GEAE should maintain a record of any corrective actions to restore the monitoring equipment in a timely fashion.
- f. Response: The inherent nature of GEAE's operation is to capture 100% of emissions data. As a business they run and test engines to collect data ranging from performance to emissions, consequently they only run engines if their data capturing systems are functioning properly. Listed below are systems currently in place to ensure a 100% data capture rate.
- Peebles GEAE has installed UPS (Uninterrupted Power Supply) systems to our monitoring equipment to ensure data is collected in the case of a power outage while the engine is shut down safely.
  - In the case that monitoring system is not recording data then the site automatically shuts the engine down. The site has the ability to obtain all data from engine logs needed to determine emissions and update the tracking system.
  - GE believes that the frequency of its having to take corrective action to restore its monitoring equipment would be very minimal and GE is willing to keep a log of such actions.

The reference to the 95 percent data capture rate was removed and replaced with the following language the bottom of section d)(1) stating **....In the event that data is unable to be captured, the permittee shall maintain records of the duration and any corrective actions taken to restore the monitoring equipment in a timely fashion.**



**FINAL**

**Division of Air Pollution Control  
Permit-to-Install**

for

General Electric Aircraft Engines: Peebles Facility

Facility ID:	0701000001
Permit Number:	P0109999
Permit Type:	Initial Installation
Issued:	3/7/2013
Effective:	3/7/2013





**Division of Air Pollution Control**  
**Permit-to-Install**  
for  
General Electric Aircraft Engines: Peebles Facility

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**Final Permit-to-Install**  
General Electric Aircraft Engines: Peebles Facility  
**Permit Number:** P0109999  
**Facility ID:** 0701000001  
**Effective Date:** 3/7/2013

## Authorization

Facility ID: 0701000001  
Facility Description: The GEAE Peebles site performs certification testing for aircraft engines.  
Application Number(s): A0044458, A0046178  
Permit Number: P0109999  
Permit Description: GEAE new test engine stand site 5D  
Permit Type: Initial Installation  
Permit Fee: \$1,000.00  
Issue Date: 3/7/2013  
Effective Date: 3/7/2013

This document constitutes issuance to:

General Electric Aircraft Engines: Peebles Facility  
1200 Jaybird Road  
Peebles, OH 45660

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:

Portsmouth City Health Dept., Air Pollution Unit  
605 Washington Street  
3rd Floor  
Portsmouth, OH 45662  
(740)353-5156

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

A handwritten signature in black ink, appearing to read "Scott J. Nally".

Scott J. Nally  
Director



**Final Permit-to-Install**  
General Electric Aircraft Engines: Peebles Facility  
**Permit Number:** P0109999  
**Facility ID:** 0701000001  
**Effective Date:** 3/7/2013

## Authorization (continued)

Permit Number: P0109999  
Permit Description: GEAE new test engine stand site 5D

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

<b>Emissions Unit ID:</b>	<b>P002</b>
Company Equipment ID:	Engine Test Site 5D
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



**Final Permit-to-Install**  
General Electric Aircraft Engines: Peebles Facility  
**Permit Number:** P0109999  
**Facility ID:** 0701000001  
**Effective Date:** 3/7/2013

## **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 Portsmouth City Health Dept., Air Pollution Unit.



- (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 Portsmouth City Health Dept., Air Pollution Unit. 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 Portsmouth City Health Dept., Air Pollution Unit 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 Portsmouth City Health Dept., Air Pollution Unit 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 Portsmouth City Health Dept., Air Pollution Unit 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 Portsmouth City Health Dept., Air Pollution Unit.
- 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 Portsmouth City Health Dept., Air Pollution Unit. 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 Aircraft Engines: Peebles Facility  
**Permit Number:** P0109999  
**Facility ID:** 0701000001  
**Effective Date:** 3/7/2013

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



**Final Permit-to-Install**  
General Electric Aircraft Engines: Peebles Facility  
**Permit Number:** P0109999  
**Facility ID:** 0701000001  
**Effective Date:** 3/7/2013

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.



**Final Permit-to-Install**  
General Electric Aircraft Engines: Peebles Facility  
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## **C. Emissions Unit Terms and Conditions**



**1. P002, Engine Test Site 5D**

**Operations, Property and/or Equipment Description:**

Jet Engine Test Stand 5D (stack emissions only)

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC paragraph 3745-31-05(A)(3), as effective 11/30/01	<p>Particulate emissions (PE)/particulate emissions less than or equal to ten microns in diameter (PM<sub>10</sub>) shall not exceed 5.2pounds per hour.</p> <p>Sulfur dioxide (SO<sub>2</sub>) emissions shall not exceed 10.9pounds per hour.</p> <p>See b)(2)f.</p> <p>Visible particulate emissions from the site 5D stack shall not exceed 10% opacity as a 6-minute average during any 60-minute observation period.</p> <p>Compliance with this rule also includes compliance with OAC rules 3745-31-(10) through (20) and OAC rule 3745-31-05(D).</p>
b.	ORC 3704.03(T)	<p>Hydrocarbon (HC)/ Volatile Organic Compounds (VOC) emissions shall not exceed 135.6pounds per hour.</p> <p>See b)(2)c and b)(2)h.</p>
c.	OAC paragraph 3745-31-05(A)(3), as effective 12/01/06	See b)(2)g.
d.	OAC rule 3745-31-05(D)	PE/PM <sub>10</sub> shall not exceed 0.9 ton per year as a rolling, 12-month summation.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		SO <sub>2</sub> emissions shall not exceed 3.0 tons per year as a rolling, 12-month summation.  HC/VOC emissions shall not exceed 11.9 tons per year as a rolling, 12-month summation.  See b)(2)c.
e.	OAC rules 3745-31-(10) through (20)	Nitrogen oxides (NO <sub>x</sub> ) emissions shall not exceed 2255.9 pounds per hour and 431.6 tons per year as a rolling, 12-month summation.  Carbon monoxide (CO) emissions shall not exceed 504.1 pounds per hour and 152.6 tons per year as a rolling, 12-month summation.  See b)(2)a.
f.	OAC rule 3745-18-06(E)(2)	The SO <sub>2</sub> emission limitation required by this applicable rule is less stringent than the SO <sub>2</sub> emission limitation established pursuant to ORC 3704.03(T).
g.	OAC rule 3745-17-07(A)	See b)(2)e.
h.	OAC rule 3745-17-11(A)(1)(m)	See b)(2)d.
i.	40 CFR Part 63, Subpart P P P P P	See b)(2)b.

(2) Additional Terms and Conditions

- a. The Best Available Control Technology (BACT) for NO<sub>x</sub> and CO is based upon design emissions levels, and has been determined to be no control.
- b. In accordance with 40 CFR Part 63.9290(d), any new or reconstructed engine test cell/stand located at a major source that is used exclusively for testing combustion turbine engines, does not have to meet the requirements of 40 CFR Part 63, Subpart P P P P P and of 40 CFR Part 63, Subpart A.
- c. Hydrocarbons for the purpose of this permit are defined as any compounds which contain only hydrogen and carbon.
- d. Pursuant to OAC rule 3745-17-11(A)(1)(m), Jet engine test cells and stands are not subject to OAC rule 3745-17-11.
- e. This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(A) pursuant to OAC rule 3745-17-07(A)(3)(h)



because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.

- f. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to the Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 changes), such that BAT is no longer required by State regulations for National Ambient Air Quality Standards (NAAQS) pollutant(s) less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limitations/control measures no longer apply.
- g. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PE/PM<sub>10</sub>, and SO<sub>2</sub> emissions from the jet engine test stand stack because the PE/PM<sub>10</sub>, and SO<sub>2</sub> emissions are each less than 10 tons per year.

- h. Compliance with ORC 3704.03(T) shall be demonstrated by the emission limitations and compliance with applicable BACT requirements, record keeping, reporting, and emissions testing required by this permit that are associated with the above ORC 3704.03(T) limitations and requirements.

c) Operational Restrictions

- (1) The maximum annual source operation and emission rates (based upon fuel flow and emissions factors) for PE/PM<sub>10</sub>, HC/VOC, and SO<sub>2</sub> from this emissions unit shall not exceed 0.90, 11.90 and 3.00 tons per year, respectively, based upon a rolling, 12-month summation of the operating data and emission rates.

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

Month(s)	Maximum Allowable Cumulative Emissions of PE/PM <sub>10</sub> (tons)	Maximum Allowable Cumulative Emissions of HC/VOC (tons)	Maximum Allowable Cumulative Emissions of SO <sub>2</sub> (tons)
1	0.23	2.98	0.75
1-2	0.29	3.79	0.95



Month(s)	Maximum Allowable Cumulative Emissions of PE/PM <sub>10</sub> (tons)	Maximum Allowable Cumulative Emissions of HC/VOC (tons)	Maximum Allowable Cumulative Emissions of SO <sub>2</sub> (tons)
1-3	0.35	4.60	1.16
1-4	0.41	5.41	1.36
1-5	0.47	6.22	1.57
1-6	0.53	7.03	1.77
1-7	0.59	7.84	1.98
1-8	0.65	8.65	2.18
1-9	0.72	9.47	2.39
1-10	0.78	10.28	2.59
1-11	0.84	11.09	2.80
1-12	0.90	11.90	3.00

After the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, compliance with the annual emission limitation for PE/PM<sub>10</sub>, HC/VOC, and SO<sub>2</sub> shall be based upon a rolling, 12-month summation of the operating data and emissions rates.

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

- (1) The permittee shall maintain monthly records summarizing the following information for this emissions unit:
  - a. the total hours of engine testing and the type and total amount of each fuel used, as determined by the automated instantaneous fuel flow tracker; and
  - b. the PE/PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, HC/VOC and CO emission rates, as determined in accordance with the method required in section f)(1), in pounds per hour (average), tons per month and beginning after the first 12 calendar months of operation, tons per year as a rolling, 12-month summation.

Also, during the first 12 calendar months of operation, the permittee shall record the cumulative PE/PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, HC/VOC and CO emission rates for each calendar month; and



The permittee shall also maintain records that can be used to establish the total hours of engine testing for each type of engine, and the amount and type of fuel used (naptha, kerosene-based distillate fuel, natural gas or other) for each type of engine.

In the event that data is unable to be captured, the permittee shall maintain records of the duration and any corrective actions taken to restore the monitoring equipment in a timely fashion.

- (2) Fuel flow meters shall meet the requirements of 40 CFR Part 75, Appendix D and shall be calibrated annually.
- (3) When this emissions unit is in operation and burns fuels other than naptha and kerosene-based distillate fuel or natural gas, the permittee shall perform daily checks, when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible particulate emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note in the operations log:
  - a. the color of the emissions;
  - b. the total duration of any visible emission incident; and
  - c. any corrective actions taken to minimize or eliminate the visible particulate emissions.

If visible particulate emissions are present, a visible emissions incident has occurred. The observer does not have to document the exact start and end times for visible emission under item (b) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible particulate emissions were believed to be less than the allowable emission limitation, or specify the corrective actions that were taken to minimize or eliminate the visible particulate emissions.

- (4) Notwithstanding the frequency of reporting requirements specified in section e)(2), the permittee may reduce the frequency of visual observations for this emissions unit from daily to weekly if the following conditions are met:
  - a. for 1 full quarter this emissions unit's visual observations indicate no visible emissions; and
  - b. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to daily readings for this emissions unit if visible emissions are observed. The permittee may again reduce the frequency of visible emissions observations from daily to weekly after obtaining 1 full quarter of observations with no visible emissions for this emissions unit.



e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
  - a. all exceedances of the rolling, 12-month emission limitations for PE/PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, HC/VOC, and CO; and

The quarterly deviation reports shall be submitted in accordance with the requirements specified in Standard Term and Condition A.2.c)(2) of this permit.

- (2) The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Director (Portsmouth local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

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:

PE/PM<sub>10</sub> emissions shall not exceed 5.2 pounds per hour and 0.9 ton per year as a rolling, 12-month summation.

SO<sub>2</sub> emissions shall not exceed 10.9 pounds per hour and 3.0 tons per year as a rolling, 12-month summation.

NO<sub>x</sub> emissions shall not exceed 2255.9 pounds per hour and 431.6 tons per year as a rolling, 12-month summation.

HC/VOC emissions shall not exceed 135.6 pounds per hour and 11.9 tons per year as a rolling, 12-month summation.

CO emissions shall not exceed 504.1 pounds per hour and 152.6 tons per year as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be determined in accordance with the most recent version of the emission tracking procedure to calculate emissions from engine testing. The procedure has been defined by GE Aviation in the "Emissions Protocol Document" (reviewed and approved by the Portsmouth local air agency on May 19, 2005) and shall be retained on site. The emissions tracking procedure contains procedures for (a) developing emission factors; (b) calculating emission rates; and (c) conducting periodic audits of the procedure, as described below.



The permittee has developed emission factors pursuant to protocols referenced in 40 CFR Part 87, FAR 34, and ICAO Annex 16 for use in the emissions tracking procedures for engines tested at this facility. Emission factors shall be developed for PE/PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, HC/VOC, and CO for each new engine family to be tested at this facility.

In the event that measured factors are not available, engineering judgment shall be used to develop estimated emission factors for each new engine family. These factors and supporting information (i.e., date and location measured) shall be retained in the protocol document.

The permittee shall calculate the emission rates using the emission factors and the automated instantaneous fuel flow tracking required in section d)(1)a.

The permittee shall conduct periodic audits to ensure continued operation of the emission tracking system. The permittee shall retain records to document the results of the periodic audits.

The permittee shall make provisions for the Ohio EPA and/or the Portsmouth local air agency to execute the same audit procedure at any time during normal business hours.

b. Emission Limitation:

Visible particulate emissions from the site 5D stack shall not exceed 10% opacity as a 6-minute average during any 60-minute observation period.

Applicable Compliance Method:

If required, compliance with this emission limitation shall be demonstrated through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

g) Miscellaneous Requirements

(1) None.