



State of Ohio Environmental Protection Agency

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Columbus, OH 43216-1049

12/03/98

CERTIFIED MAIL

RE: Draft Title V Chapter 3745-77 permit

07-01-00-0001
General Electric Aircraft Engines: Peebles Facility
Sam C. Young
1200 Jaybird Road
Mail Drop PTO
Peebles, OH 45660

Dear Sam C. Young:

You are hereby notified that the Ohio Environmental Protection Agency has prepared the enclosed draft of the Title V permit for the facility referenced above. The purpose of this draft is to solicit public comments. A public notice concerning the draft will appear in the Ohio EPA Weekly Review and the major newspaper in the county where the facility is located. Comments and/or a request for a public hearing from the public and any affected parties will be accepted by Portsmouth Air Pollution Group within 30 days of the date of publication in the newspaper. You will be notified in writing if a public hearing is scheduled.

A decision on processing the Title V permit will be made after consideration of written public comments and oral testimony (if a public hearing is conducted). After the comment period, you will be provided with a Preliminary Proposed Title V permit and an opportunity to comment prior to the Proposed Title V permit submittal to USEPA.

If you have any questions or comments concerning this draft Title V permit, please contact Portsmouth Air Pollution Group.

Very truly yours,

Thomas G. Rigo, Manager
Field Operations and Permit Section
Division of Air Pollution Control

cc: USEPA
Jim Orlemann, DAPC Engineering
Michael Ahern, DAPC PMU
Portsmouth Air Pollution Group
Kentucky
West Virginia



Ohio EPA

State of Ohio Environmental Protection Agency

TITLE V PERMIT

Issue Date: 12/03/98

DRAFT

Effective Date:

Expiration Date:

This document constitutes issuance to:

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

of a Title V permit for Facility ID: 07-01-00-0001

Emissions Unit ID (Company ID)/

Emissions Unit Activity Description:

B008 (Engine Test Stand 5A)

Engine Test Stand 5A (Site V, Pad A)

F007 (Engine Test Stand 4D)

Engine Test Stand (Site 4D)

B009 (Engine Test Stand 5B)

Engine Test Stand 5B (Site V, Pad B)

B002 (Engine Test Stand 3B)

Engine Test Stand 3B (Site III, Pad B)

B003 (Engine Test Stand 3C)

Engine Test Stand 3C (Site III, Pad C)

F010 (Engine Test Stand 3D)

Engine Test Stand (Site 3D)

F012 (Engine Test Stand 3E)

Engine Test Stand (Site III E)

F013 (Engine Test Stand 6A)

Engine Test Stand (Site 6A)

You will be contacted approximately eighteen (18) months prior to the expiration date regarding the renewal of this permit. If you are not contacted, please contact the appropriate Ohio EPA District Office or local air agency listed below. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-04(A) and in accordance with the terms of this permit

beyond the expiration date, provided that a complete renewal application is submitted no earlier than eighteen (18) months and no later than one-hundred eighty (180) days prior to the expiration date.

Described below is the current Ohio EPA District Office or local air agency that is responsible for processing and administering your Title V permit:

Portsmouth Air Pollution Group
740 Second Street
Portsmouth, OH 45662
(614) 353-5156

OHIO ENVIRONMENTAL PROTECTION AGENCY

Director

PART I - GENERAL TERMS AND CONDITIONS

A. State and Federally Enforceable Section

1. Monitoring and Related Recordkeeping and Reporting Requirements

- a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
 - i. The date, place (as defined in the permit), and time of sampling or measurements.
 - ii. The date(s) analyses were performed.
 - iii. The company or entity that performed the analyses.
 - iv. The analytical techniques or methods used.
 - v. The results of such analyses.
 - vi. The operating conditions existing at the time of sampling or measurement.
- b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
 - i. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
 - ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be promptly made to the appropriate Ohio EPA District Office or local air agency. These quarterly written reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the submission of monitoring reports every six months and OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of all deviations except malfunctions, which shall be reported in accordance with OAC rule 3745-15-06. The written reports shall be submitted quarterly, i.e., 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.) See B.8 below if no deviations occurred during the quarter.
 - iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year for the previous six calendar months. These semi-annual written reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the reporting of any deviations related to the monitoring, recordkeeping, and reporting requirements. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.

- iv. 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.

2. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports submitted pursuant to OAC rule 3745-15-06 shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of deviations caused by malfunctions or upsets.

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

3. Risk Management Plans

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

4. Title IV Provisions

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

5. Severability Clause

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

6. General Requirements

- a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.
- 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, reopened, 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, reopening 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.

7. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78.

8. Marketable Permit Programs

No revision of this permit is required under any approved economic incentive, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in this permit.

9. Reasonably Anticipated Operating Scenarios

The permittee is hereby authorized to make changes among operating scenarios authorized in this permit without notice to the Ohio EPA, but, contemporaneous with making a change from one operating scenario to another, the permittee must record in a log at the permitted facility the scenario under which the permittee is operating. The permit shield provided in these general terms and conditions shall apply to all operating scenarios authorized in this permit.

10. Reopening for Cause

This Title V permit will be reopened prior to its expiration date under the following conditions:

- a. Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.
- b. This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit, and shall not require a reopening of this permit.

- c. The Director of the Ohio EPA or the Administrator of the U.S. EPA determines that the federally applicable requirements in this permit are based on a material mistake, or that inaccurate statements were made in establishing the emissions standards or other terms and conditions of this permit related to such federally applicable requirements.
- d. The Administrator of the U.S. EPA or the Director of the Ohio EPA determines that this permit must be revised or revoked to assure compliance with the applicable requirements.

11. Federal and State Enforceability

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

12. Compliance Requirements

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
 - i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
 - ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with paragraph (E) of OAC rule 3745-77-03.
 - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
 - i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.
- d. Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the appropriate Ohio EPA District Office or local air agency in the following manner and with the following content:

- i. Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted on or before April 30th of each year during the permit term.
- ii. Compliance certifications shall include the following:
 - (a) An identification of each term or condition of this permit that is the basis of the certification.
 - (b) The permittee's current compliance status.
 - (c) Whether compliance was continuous or intermittent.
 - (d) The method(s) used for determining the compliance status of the source currently and over the required reporting period.
 - (e) Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.
- iii. Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

13. Permit Shield

- a. Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC rule 3745-77-07) shall be deemed compliance with the applicable requirements identified and addressed in this permit as of the date of permit issuance.
- b. This permit shield provision shall apply to any requirement identified in this permit pursuant to OAC rule 3745-77-07(F)(2), as a requirement that does not apply to the source or to one or more emissions units within the source.

14. Operational Flexibility

The permittee is authorized to make the changes identified in OAC rule 3745-77-07(H)(1)(a) to (H)(1)(c) within the permitted stationary source without obtaining a permit revision, if such change is not a modification under any provision of Title I of the Act [as defined in OAC rule 3745-77-01(JJ)], and does not result in an exceedance of the emissions allowed under this permit (whether expressed therein as a rate of emissions or in terms of total emissions), and the permittee provides the Administrator of the U.S. EPA and the appropriate Ohio EPA District Office or local air agency with written notification within a minimum of seven days in advance of the proposed changes, unless the change is associated with, or in response to, emergency conditions. If less than seven days notice is provided because of a need to respond more quickly to such emergency conditions, the permittee shall provide notice to the Administrator of the U.S. EPA and the appropriate District Office of the Ohio EPA or local air agency as soon as possible after learning of the need to make the change. The notification shall contain the items required under OAC rule 3745-77-07(H)(2)(d).

15. Emergencies

The permittee shall have an affirmative defense of emergency to an action brought for noncompliance with technology-based emission limitations if the conditions of OAC rule 3745-77-07(G)(3) are met. This emergency defense provision is in addition to any emergency or upset provision contained in any applicable requirement.

16. Off Permit Changes

The owner or operator of a Title V source may make any change in its operations or emissions at the source that is not specifically addressed or prohibited in the Title V permit, without obtaining an amendment or modification of the permit, provided that the following conditions are met:

- a. The change does not result in conditions that violate any applicable requirements or that violate any existing federally enforceable permit term or condition;
- b. The permittee provides contemporaneous written notice of the change to the director and the administrator, except that no such notice shall be required for changes that qualify as insignificant emission levels or activities as defined in OAC rule 3745-77-01(U). Such written notice shall describe each such change, the date of such change, any change in emissions or pollutants emitted, and any federally applicable requirement that would apply as a result of the change;
- c. The change shall not qualify for the permit shield under OAC rule 3745-77-07(F);
- d. The permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes; and
- e. The change is not subject to any applicable requirement under Title IV of the Act or is not a modification under any provision of Title I of the Act.

Paragraph (I) of rule 3745-77-07 of the Administrative Code applies only to modification or amendment of the permittee's Title V permit. The change made may require a permit to install under Chapter 3745-31 of the Administrative Code if the change constitutes a modification as defined in that Chapter. Nothing in paragraph (I) of rule 3745-77-07 of the Administrative Code shall affect any applicable obligation under Chapter 3745-31 of the Administrative Code.

(For further clarification, the permittee can refer to Engineering Guide #63 that is available in their STARSHIP software package.)

17. Compliance Method Requirements

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee, including but not limited to, any challenge to the Credible Evidence Rule (see 62 Fed. Reg. 8314, Feb. 24, 1997), in the context of any future proceeding.

B. State Only Enforceable Section

1. Permit to Install Requirement

Prior to the “installation” or “modification” of any “air contaminant source,” as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.

2. Reporting Requirements Related to Monitoring and Recordkeeping Requirements

The permittee shall submit required reports in the following manner:

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

3. Records Retention Requirements

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.

4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. 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, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

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 of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. 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 emissions unit(s) that is (are) served by such control system(s).

6. Permit Transfers

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

7. 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.

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

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

Part II - Specific Facility Terms and Conditions

A. State and Federally Enforcable Section

1. For each new or existing cleaning operation subject to 40 CFR Part 63, Subpart GG, the permittee shall record the information listed below, as appropriate:
 - a. the name, vapor pressure, and documentation showing the organic HAP constituents of each cleaning solvent used for the affected cleaning operations at the facility;
 - b. for each cleaning solvent used in hand-wipe cleaning operations that complies with the composition requirements specified in 40 CFR 63.744(b)(1) or for semi-aqueous cleaning solvents used for flush cleaning operations:
 - i. the name of each cleaning solvent used;
 - ii. all data and calculations that demonstrate that the cleaning solvent complies with one of the composition requirements; and
 - iii. annual records of the volume of each solvent used, as determined from facility purchase records or usage records.
 - c. for each cleaning solvent used in hand-wipe cleaning operations that does not comply with the composition requirements in 40 CFR 63.744(b)(1), but does comply with the vapor pressure requirement in 40 CFR 63.744(b)(2):
 - i. the name of each cleaning solvent used;
 - ii. the composite vapor pressure of each cleaning solvent used;
 - iii. all vapor pressure test results, data, and calculations used to determine the composite vapor pressure of each cleaning solvent; and
 - iv. the amount (in gallons) of each cleaning solvent used each month at each operation.
 - d. for each cleaning solvent used for the exempt hand-wipe cleaning operations specified in 40 CFR 63.744(e) that does not conform to the vapor pressure or composition requirements of 40 CFR 63.744(b):
 - i. the identity and amount (in gallons) of each cleaning solvent used each month at each operation; and
 - ii. a list of the processes set forth in 40 CFR 63.744(e) to which the cleaning operation applies.
2. The permittee shall submit semi-annual reports, every 6 months from the date of the notification of compliance status, that identify:
 - a. any instance when a non-compliant cleaning solvent is used for a nonexempt hand-wipe cleaning operation;
 - b. a list of any new cleaning solvents used for hand-wipe cleaning in the report period and their composite vapor pressures or notification that they comply with the composition requirements specified in 40 CFR 63.744(b)(1); and
 - c. if the operations have been in compliance with (i) and (ii) above for the semi-annual period, a statement that the cleaning operations have been in compliance with these requirements. The permittee shall submit a statement of compliance signed by a responsible company official certifying that the facility is in compliance with all applicable requirements.

A. State and Federally Enforcable Section (continued)

3.
 - a. Compliance with the hand-wipe cleaning solvent approved composition list specified in 40 CFR Part 63.744(b)(1) for hand-wipe cleaning solvents shall be demonstrated using data supplied by the manufacturer of the cleaning solvent. The data shall identify all components of the cleaning solvent and shall demonstrate that one of the approved composition definitions is met.
 - b. The composite vapor pressure of hand-wipe cleaning solvents used in a cleaning operation subject to 40 CFR Part 63, Subpart GG shall be determined as follows:
 - i. For single component hand-wipe cleaning solvents, the vapor pressure shall be determined using MSDS or other manufacturer's data, standard engineering reference texts, or other equivalent methods.
 - ii. The composite vapor pressure of a blended hand-wipe solvent shall be determined by quantifying the amount of each organic compound in the blend using manufacturer's supplied data or a gas chromatographic analysis in accordance with ASTM E 260-91, and by calculating the composite vapor pressure of the solvent by summing the partial pressures of each component. The vapor pressure of each component shall be determined using manufacturer's data, standard engineering reference texts, or other equivalent methods. The equation specified in 40 CFR 63.750(b)(2) shall be used to calculate composite vapor pressure.

B. State Only Enforceable Section

1. The following insignificant emissions units are located at this facility:

B011 - site 6A heater #1
B012 - site 6A heater #2
B013 - site 6A boiler
G001 - gasoline dispensing facility
T006 - fuel tank #6
T007 - waste tank #2
T008 - waste tank #1
T009 - used lube oil tank
T010 - used lube oil tank
T011 - surplus jet fuel tank
T012 - fuel tank #1
T013 - fuel tank #2
T014 - tank

Each insignificant emissions unit at this facility must comply with all applicable State and federal regulations, as well as any emission limitations and/or control requirements contained within a permit to install for the emissions unit.

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Engine Test Stand 3B (B002)
Activity Description: Engine Test Stand 3B (Site III, Pad B)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
jet engine test stand 3B	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Engine Test Stand 3C (B003)
Activity Description: Engine Test Stand 3C (Site III, Pad C)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
jet engine test stand 3C	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Engine Test Stand 5A (B008)
Activity Description: Engine Test Stand 5A (Site V, Pad A)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
jet engine test stand 5A	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Engine Test Stand 5B (B009)
Activity Description: Engine Test Stand 5B (Site V, Pad B)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
jet engine test stand 5B	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Engine Test Stand 4D (F007)
Activity Description: Engine Test Stand (Site 4D)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
jet engine test stand 4D	OAC rule 3745-31-05 (PTI 07-385)	25 lbs/hr of particulates/PM10 6.1 tpy of particulates/PM10 as a rolling, 12-month summation 200 lbs/hr of sulfur dioxide (SO2) 16.6 tpy of SO2 as a rolling, 12-month summation 5900 lbs/hr of nitrogen oxides (NOx) 389 tpy of NOx as a rolling, 12-month summation 450 lbs/hr of hydrocarbons (HC) 26.7 tpy of HC as a rolling, 12-month summation See A.2.b below. 350 lbs/hr of carbon monoxide (CO) 300 tpy of CO as a rolling, 12-month summation Visible particulate emissions shall not exceed 10% opacity as a 6-minute average in any 60-minute observation period. See A.2.a below.
	40 CFR 52.21	

2. Additional Terms and Conditions

- 2.a Best Available Control Technology (BACT) for NOx and CO has been determined to be no control.
- 2.b Hydrocarbons (HC), for the purposes of this permit, are defined as any compounds which contain only hydrogen and carbon.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records summarizing the following information for the jet engine test stand covered by this permit:
 - a. operating parameters for the test stand as determined by the automated instantaneous fuel flow tracker: total hours of engine testing and type and total amount of each fuel used;
 - b. emissions of NO_x, particulates, SO₂, HC, and CO as determined in accordance with the method required in section A.V.1: total tons per month and a rolling, 12-month summation, in tons; and
 - c. the data capture rate specified in section A.V.2.
2. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions. The presence or absence of visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.
3. In accordance with permit to install 07-385, as issued on 3/1/95, the permittee is required to establish an ambient air quality monitoring site within the facility, at the location agreed to by the OEPA and GE representatives, to conduct monitoring for SO₂. The permittee has submitted a protocol document titled "MONITORING PLAN FOR THE DESIGN AND OPERATION OF A SULFUR DIOXIDE AND METEOROLOGICAL MONITORING PROGRAM," dated May 5, 1998. The permittee shall adhere to this protocol during the monitoring period. The monitoring program began on June 1, 1998. If after 6 months measured SO₂ concentrations are less than 75 percent of the 3-hour, 24-hour, and annual NAAQS, the permittee may discontinue the monitoring program.
4. Fuel flow meters shall meet the requirements of 40 CFR Part 75, Appendix D and shall be calibrated annually.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the emissions of NO_x, SO₂, HC, and/or CO exceeded the rolling, 12-month limitations specified above.
2. The permittee shall submit deviation (excursion) reports for all periods of time which do not attain the data capture rate specified in section A.V.2. The excursion report shall provide a description of the cause.
3. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.
4. The permittee shall submit semi-annual written reports which a) identify all days during which any visible particulate emissions were observed and b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

IV. Reporting Requirements (continued)

5. The permittee shall submit quarterly reports which include the following items as defined in section 6.3 of the "MONITORING PLAN FOR THE DESIGN AND OPERATION OF A SULFUR DIOXIDE AND METEOROLOGICAL MONITORING PROGRAM":
 - a. all acceptable data;
 - b. a description of monitoring activities during the quarter;
 - c. the percentage of data recovered, with explanations for periods with low data recoveries;
 - d. the accuracy and precision of the data;
 - e. a wind rose of wind speed and wind direction; and
 - f. copies of the data in the AIRS format.

The reports shall be submitted by May 15, August 15, November 15, and February 15 and shall cover data obtained in the previous calendar quarter.

V. Testing Requirements

1. The permittee shall utilize the most recent version of the emission tracking procedure to calculate emissions from engine testing. The procedure has been defined by General Electric Aircraft Engines in the "Emissions Protocol Document" and shall be retained on site. The emission tracking procedure contains procedures for (a) developing emission factors; (b) calculating emission rates; and (c) periodic audits of the procedure, as described below:
 - 1.a The permittee has developed emission factors per protocols referenced in 40 CFR Part 87, FAR 34, and ICAO Annex 16 for use in the emission tracking procedures for engines tested at this facility. Emission factors shall be developed for NO_x, particulates/PM₁₀, CO, HC, and SO₂ for each new engine family to be tested at this facility.

In the event that measured factors are not available, engineering judgement shall be used to develop estimated emission factors for each new engine family. These factors and supporting information (i.e., date & location measured) shall be retained in the protocol document.
 - 1.b The permittee shall calculate the emission rates using the emission factors and the automated instantaneous fuel flow tracking required in section A.III.1.a.
 - 1.c The permittee shall conduct periodic auditing to ensure continued operation of the emissions tracking system. The permittee shall retain records to document the results of the periodic auditing and report deviations outside of the required data capture rate specified in section A.V.2.

The permittee shall make provisions for Ohio EPA to execute the same audit procedure at any time during normal business hours.

2. The data capture rate for the operating parameters in section A.III.1.a shall be no less than 95%.
3. Compliance with the emission limitations in section A.1 of these terms and conditions shall be determined in accordance with the following methods:
 - 3.a Emission Limitation:

10% opacity as a 6-minute average

Applicable Compliance Method:
OAC rule 3745-17-03(B)(1)

V. Testing Requirements (continued)

3.b Emission Limitations:

25 lbs/hr of particulates/PM10
6.1 tpy of PM/PM10 as a rolling, 12-month summation

200 lbs/hr of SO2
16.6 tpy of SO2 as a rolling, 12-month summation

5900 lbs/hr of NOx
389 tpy of NOx as a rolling, 12-month summation

450 lbs/hr of HC
26.7 tpy of HC as a rolling, 12-month summation

350 lbs/hr of CO
300 tpy of CO as a rolling, 12-month summation

Applicable Compliance Method:

Compliance shall be determined in accordance with the emission tracking procedure discussed in section A.V.1.

VI. Miscellaneous Requirements

1. Jet engine test stand 4A (B005) shall remain shut down.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Engine Test Stand 3D (F010)
Activity Description: Engine Test Stand (Site 3D)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
jet engine test stand 3D	OAC rule 3745-31-05 (PTI 07-385)	25 lbs/hr of particulates/PM10 6.1 tpy of particulates/PM10 as a rolling, 12-month summation 200 lbs/hr of sulfur dioxide (SO2) 16.6 tpy of SO2 as a rolling, 12-month summation 5900 lbs/hr of nitrogen oxides (NOx) 389 tpy of NOx as a rolling, 12-month summation 450 lbs/hr of hydrocarbons (HC) 26.7 tpy of HC as a rolling, 12-month summation See A.2.b below. 350 lbs/hr of carbon monoxide (CO) 300 tpy of CO as a rolling, 12-month summation Visible particulate emissions shall not exceed 10% opacity as a 6-minute average in any 60-minute observation period. See A.2.a below.
	40 CFR 52.21	

2. Additional Terms and Conditions

- Best Available Control Technology (BACT) for NOx and CO has been determined to be no control.
- Hydrocarbons (HC), for the purposes of this permit, are defined as any compounds which contain only hydrogen and carbon.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records summarizing the following information for the jet engine test stand covered by this permit:
 - a. operating parameters for the test stand as determined by the automated instantaneous fuel flow tracker: total hours of engine testing and type and total amount of each fuel used;
 - b. emissions of NO_x, particulates, SO₂, HC, and CO as determined in accordance with the method required in section A.V.1: total tons per month and a rolling, 12-month summation, in tons; and
 - c. the data capture rate specified in section A.V.2.
2. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions. The presence or absence of visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.
3. In accordance with permit to install 07-385, as issued on 3/1/95, the permittee is required to establish an ambient air quality monitoring site within the facility, at the location agreed to by the OEPA and GE representatives, to conduct monitoring for SO₂. The permittee has submitted a protocol document titled "MONITORING PLAN FOR THE DESIGN AND OPERATION OF A SULFUR DIOXIDE AND METEOROLOGICAL MONITORING PROGRAM," dated May 5, 1998. The permittee shall adhere to this protocol during the monitoring period. The monitoring program began on June 1, 1998. If after 6 months measured SO₂ concentrations are less than 75 percent of the 3-hour, 24-hour, and annual NAAQS, the permittee may discontinue the monitoring program.
4. Fuel flow meters shall meet the requirements of 40 CFR Part 75, Appendix D and shall be calibrated annually.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the emissions of NO_x, SO₂, HC, and/or CO exceeded the rolling, 12-month limitations specified above.
2. The permittee shall submit deviation (excursion) reports for all periods of time which do not attain the data capture rate specified in section A.V.2. The excursion report shall provide a description of the cause.
3. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.
4. The permittee shall submit semi-annual written reports which a) identify all days during which any visible particulate emissions were observed and b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

IV. Reporting Requirements (continued)

5. The permittee shall submit quarterly reports which include the following items as defined in section 6.3 of the "MONITORING PLAN FOR THE DESIGN AND OPERATION OF A SULFUR DIOXIDE AND METEOROLOGICAL MONITORING PROGRAM":
 - a. all acceptable data;
 - b. a description of monitoring activities during the quarter;
 - c. the percentage of data recovered, with explanations for periods with low data recoveries;
 - d. the accuracy and precision of the data;
 - e. a wind rose of wind speed and wind direction; and
 - f. copies of the data in the AIRS format.

The reports shall be submitted by May 15, August 15, November 15, and February 15 and shall cover data obtained in the previous calendar quarter.

V. Testing Requirements

1. The permittee shall utilize the most recent version of the emission tracking procedure to calculate emissions from engine testing. The procedure has been defined by General Electric Aircraft Engines in the "Emissions Protocol Document" and shall be retained on site. The emission tracking procedure contains procedures for (a) developing emission factors; (b) calculating emission rates; and (c) periodic audits of the procedure, as described below:
 - 1.a The permittee has developed emission factors per protocols referenced in 40 CFR Part 87, FAR 34, and ICAO Annex 16 for use in the emission tracking procedures for engines tested at this facility. Emission factors shall be developed for NO_x, particulates/PM₁₀, CO, HC, and SO₂ for each new engine family to be tested at this facility.

In the event that measured factors are not available, engineering judgement shall be used to develop estimated emission factors for each new engine family. These factors and supporting information (i.e., date & location measured) shall be retained in the protocol document.
 - 1.b The permittee shall calculate the emission rates using the emission factors and the automated instantaneous fuel flow tracking required in section A.III.1.a.
 - 1.c The permittee shall conduct periodic auditing to ensure continued operation of the emissions tracking system. The permittee shall retain records to document the results of the periodic auditing and report deviations outside of the required data capture rate specified in section A.V.2.

The permittee shall make provisions for Ohio EPA to execute the same audit procedure at any time during normal business hours.

2. The data capture rate for the operating parameters in section A.III.1.a shall be no less than 95%.
3. Compliance with the emission limitations in section A.1 of these terms and conditions shall be determined in accordance with the following methods:
 - 3.a Emission Limitation:

10% opacity as a 6-minute average

Applicable Compliance Method:

OAC rule 3745-17-03(B)(1)

V. Testing Requirements (continued)

3.b Emission Limitations:

25 lbs/hr of particulates/PM10
6.1 tpy of particulates/PM10 as a rolling, 12-month summation

200 lbs/hr of SO2
16.6 tpy of SO2 as a rolling, 12-month summation

5900 lbs/hr of NOx
389 tpy of NOx as a rolling, 12-month summation

450 lbs/hr of HC
26.7 tpy of HC as a rolling, 12-month summation

350 lbs/hr of CO
300 tpy of CO as a rolling, 12-month summation

Applicable Compliance Method:

Compliance shall be determined in accordance with the emission tracking procedure discussed in section A.V.1.

VI. Miscellaneous Requirements

1. Jet engine test stand 4A (B005) shall remain shut down.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Engine Test Stand 3E (F012)
Activity Description: Engine Test Stand (Site III E)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
jet engine test stand 3E	OAC rule 3745-31-05 (PTI 07-385)	25 lbs/hr of particulates/PM10 5 tpy of particulates/PM10 as a rolling, 12-month summation 200 lbs/hr of sulfur dioxide (SO2) 13.7 tpy of SO2 as a rolling, 12-month summation 5900 lbs/hr of nitrogen oxides (NOx) 320 tpy of NOx as a rolling, 12-month summation 450 lbs/hr of hydrocarbons (HC) 21.9 tpy of HC as a rolling, 12-month summation See A.2.b below. 350 lbs/hr of carbon monoxide (CO) 246.8 tpy of CO as a rolling, 12-month summation Visible particulate emissions shall not exceed 10% opacity as a 6-minute average in any 60-minute observation period. See A.2.a below.
	40 CFR 52.21	

2. Additional Terms and Conditions

- Best Available Control Technology (BACT) for NOx and CO has been determined to be no control.
- Hydrocarbons (HC), for the purposes of this permit, are defined as any compounds which contain only hydrogen and carbon.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records summarizing the following information for the jet engine test stand covered by this permit:
 - a. operating parameters for the test stand as determined by the automated instantaneous fuel flow tracker: total hours of engine testing and type and total amount of each fuel used;
 - b. emissions of NO_x, particulates, SO₂, HC, and CO as determined in accordance with the method required in section A.V.1: total tons per month and a rolling, 12-month summation, in tons; and
 - c. the data capture rate specified in section A.V.2.
2. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions. The presence or absence of visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.
3. In accordance with permit to install 07-385, as issued on 3/1/95, the permittee is required to establish an ambient air quality monitoring site within the facility, at the location agreed to by the OEPA and GE representatives, to conduct monitoring for SO₂. The permittee has submitted a protocol document titled "MONITORING PLAN FOR THE DESIGN AND OPERATION OF A SULFUR DIOXIDE AND METEOROLOGICAL MONITORING PROGRAM," dated May 5, 1998. The permittee shall adhere to this protocol during the monitoring period. The monitoring program began on June 1, 1998. If after 6 months measured SO₂ concentrations are less than 75 percent of the 3-hour, 24-hour, and annual NAAQS, the permittee may discontinue the monitoring program.
4. Fuel flow meters shall meet the requirements of 40 CFR Part 75, Appendix D and shall be calibrated annually.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the emissions of NO_x, SO₂, HC, and/or CO exceeded the rolling, 12-month limitations specified above.
2. The permittee shall submit deviation (excursion) reports for all periods of time which do not attain the data capture rate specified in section A.V.2. The excursion report shall provide a description of the cause.
3. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.
4. The permittee shall submit semi-annual written reports which a) identify all days during which any visible particulate emissions were observed and b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

IV. Reporting Requirements (continued)

5. The permittee shall submit quarterly reports which include the following items as defined in section 6.3 of the "MONITORING PLAN FOR THE DESIGN AND OPERATION OF A SULFUR DIOXIDE AND METEOROLOGICAL MONITORING PROGRAM":
 - a. all acceptable data;
 - b. a description of monitoring activities during the quarter;
 - c. the percentage of data recovered, with explanations for periods with low data recoveries;
 - d. the accuracy and precision of the data;
 - e. a wind rose of wind speed and wind direction; and
 - f. copies of the data in the AIRS format.

The reports shall be submitted by May 15, August 15, November 15, and February 15 and shall cover data obtained in the previous calendar quarter.

V. Testing Requirements

1. The permittee shall utilize the most recent version of the emission tracking procedure to calculate emissions from engine testing. The procedure has been defined by General Electric Aircraft Engines in the "Emissions Protocol Document" and shall be retained on site. The emission tracking procedure contains procedures for (a) developing emission factors; (b) calculating emission rates; and (c) periodic audits of the procedure, as described below:
 - 1.a The permittee has developed emission factors per protocols referenced in 40 CFR Part 87, FAR 34, and ICAO Annex 16 for use in the emission tracking procedures for engines tested at this facility. Emission factors shall be developed for NO_x, particulates/PM₁₀, CO, HC, and SO₂ for each new engine family to be tested at this facility.

In the event that measured factors are not available, engineering judgement shall be used to develop estimated emission factors for each new engine family. These factors and supporting information (i.e., date & location measured) shall be retained in the protocol document.
 - 1.b The permittee shall calculate the emission rates using the emission factors and the automated instantaneous fuel flow tracking required in section A.III.1.a.
 - 1.c The permittee shall conduct periodic auditing to ensure continued operation of the emissions tracking system. The permittee shall retain records to document the results of the periodic auditing and report deviations outside of the required data capture rate specified in section A.V.2.

The permittee shall make provisions for Ohio EPA to execute the same audit procedure at any time during normal business hours.

2. The data capture rate for the operating parameters in section A.III.1.a shall be no less than 95%.
3. Compliance with the emission limitations in section A.1 of these terms and conditions shall be determined in accordance with the following methods:
 - 3.a Emission Limitation:

10% opacity as a 6-minute average

Applicable Compliance Method:

OAC rule 3745-17-03(B)(1)

V. Testing Requirements (continued)

3.b Emission Limitations:

25 lbs/hr of particulates/PM10
5 tpy of particulates/PM10 as a rolling, 12-month summation

200 lbs/hr of SO2
13.7 tpy of SO2 as a rolling, 12-month summation

5900 lbs/hr of NOx
320 tpy of NOx as a rolling, 12-month summation

450 lbs/hr of HC
21.9 tpy of HC as a rolling, 12-month summation

350 lbs/hr of CO
246.8 tpy of CO as a rolling, 12-month summation

Applicable Compliance Method:

Compliance shall be determined in accordance with the emission tracking procedure discussed in section A.V.1.

VI. Miscellaneous Requirements

1. Jet engine test stand 4A (B005) shall remain shut down.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Engine Test Stand 6A (F013)
Activity Description: Engine Test Stand (Site 6A)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
jet engine test stand 6A	OAC rule 3745-31-05 (PTI 07-385)	25 lbs/hr of particulates/PM10 5.5 tpy of particulates/PM10 as a rolling, 12-month summation 200 lbs/hr of sulfur dioxide (SO2) 15 tpy of SO2 as a rolling, 12-month summation 5900 lbs/hr of nitrogen oxides (NOx) 350 tpy of NOx as a rolling, 12-month summation 450 lbs/hr of hydrocarbons (HC) 24 tpy of HC as a rolling, 12-month summation See A.2.b below. 350 lbs/hr of carbon monoxide (CO) 269.9 tpy of CO as a rolling, 12-month summation Visible particulate emissions shall not exceed 10% opacity as a 6-minute average in any 60-minute observation period. See A.2.a below.
	40 CFR 52.21	

2. Additional Terms and Conditions

- Best Available Control Technology (BACT) for NOx and CO has been determined to be no control.
- Hydrocarbons (HC), for the purposes of this permit, are defined as any compounds which contain only hydrogen and carbon.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records summarizing the following information for the jet engine test stand covered by this permit:
 - a. operating parameters for the test stand as determined by the automated instantaneous fuel flow tracker: total hours of engine testing and type and total amount of each fuel used;
 - b. emissions of NO_x, particulates, SO₂, HC, and CO as determined in accordance with the method required in section A.V.1: total tons per month and a rolling, 12-month summation, in tons; and
 - c. the data capture rate specified in section A.V.2.
2. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions. The presence or absence of visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.
3. In accordance with permit to install 07-385, as issued on 3/1/95, the permittee is required to establish an ambient air quality monitoring site within the facility, at the location agreed to by the OEPA and GE representatives, to conduct monitoring for SO₂. The permittee has submitted a protocol document titled "MONITORING PLAN FOR THE DESIGN AND OPERATION OF A SULFUR DIOXIDE AND METEOROLOGICAL MONITORING PROGRAM," dated May 5, 1998. The permittee shall adhere to this protocol during the monitoring period. The monitoring program began on June 1, 1998. If after 6 months measured SO₂ concentrations are less than 75 percent of the 3-hour, 24-hour, and annual NAAQS, the permittee may discontinue the monitoring program.
4. Fuel flow meters shall meet the requirements of 40 CFR Part 75, Appendix D and shall be calibrated annually.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the emissions of NO_x, SO₂, HC, and/or CO exceeded the rolling, 12-month limitations specified above.
2. The permittee shall submit deviation (excursion) reports for all periods of time which do not attain the data capture rate specified in section A.V.2. The excursion report shall provide a description of the cause.
3. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.
4. The permittee shall submit semi-annual written reports which a) identify all days during which any visible particulate emissions were observed and b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

IV. Reporting Requirements (continued)

5. The permittee shall submit quarterly reports which include the following items as defined in section 6.3 of the "MONITORING PLAN FOR THE DESIGN AND OPERATION OF A SULFUR DIOXIDE AND METEOROLOGICAL MONITORING PROGRAM":
 - a. all acceptable data;
 - b. a description of monitoring activities during the quarter;
 - c. the percentage of data recovered, with explanations for periods with low data recoveries;
 - d. the accuracy and precision of the data;
 - e. a wind rose of wind speed and wind direction; and
 - f. copies of the data in the AIRS format.

The reports shall be submitted by May 15, August 15, November 15, and February 15 and shall cover data obtained in the previous calendar quarter.

V. Testing Requirements

1. The permittee shall utilize the most recent version of the emission tracking procedure to calculate emissions from engine testing. The procedure has been defined by General Electric Aircraft Engines in the "Emissions Protocol Document" and shall be retained on site. The emission tracking procedure contains procedures for (a) developing emission factors; (b) calculating emission rates; and (c) periodic audits of the procedure, as described below:
 - 1.a The permittee has developed emission factors per protocols referenced in 40 CFR Part 87, FAR 34, and ICAO Annex 16 for use in the emission tracking procedures for engines tested at this facility. Emission factors shall be developed for NO_x, particulates/PM₁₀, CO, HC, and SO₂ for each new engine family to be tested at this facility.

In the event that measured factors are not available, engineering judgement shall be used to develop estimated emission factors for each new engine family. These factors and supporting information (i.e., date & location measured) shall be retained in the protocol document.
 - 1.b The permittee shall calculate the emission rates using the emission factors and the automated instantaneous fuel flow tracking required in section A.III.1.a.
 - 1.c The permittee shall conduct periodic auditing to ensure continued operation of the emissions tracking system. The permittee shall retain records to document the results of the periodic auditing and report deviations outside of the required data capture rate specified in section A.V.2.

The permittee shall make provisions for Ohio EPA to execute the same audit procedure at any time during normal business hours.

2. The data capture rate for the operating parameters in section A.III.1.a shall be no less than 95%.
3. Compliance with the emission limitations in section A.1 of these terms and conditions shall be determined in accordance with the following methods:
 - 3.a Emission Limitation:

10% opacity as a 6-minute average

Applicable Compliance Method:

OAC rule 3745-17-03(B)(1)

V. Testing Requirements (continued)

3.b Emission Limitations:

25 lbs/hr of particulates/PM10
5.5 tpy of particulates/PM10 as a rolling, 12-month summation

200 lbs/hr of SO2
15 tpy of SO2 as a rolling, 12-month summation

5900 lbs/hr of NOx
350 tpy of NOx as a rolling, 12-month summation

450 lbs/hr of HC
24 tpy of HC as a rolling, 12-month summation

350 lbs/hr of CO
269.9 tpy of CO as a rolling, 12-month summation

Applicable Compliance Method:

Compliance shall be determined in accordance with the emission tracking procedure discussed in section A.V.1.

VI. Miscellaneous Requirements

1. Jet engine test stand 4A (B005) shall remain shut down.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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