

Facility ID: 0701000001 Issuance type: Title V Proposed Permit

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In addition to the terms and conditions, hyperlinks have been inserted into the document so you may more readily access the section of the document you wish to review.

Finally, the term language under "Part III" and before "I. Applicable Emissions Limitations..." has been added to aid in document conversion, and was not part of the original issued permit.

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Part II - Specific Facility Terms and Conditions

a State and Federally Enforceable Section

1. The permittee is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Engine Test Cells/Stands, 40 CFR Part 63, Subpart P. The Maximum Achievable Control Technology (MACT) standard applies to both existing and new engine test cells/stands for testing combustion turbine engines.

In accordance with 40 CFR Parts 63.9290(b) and 63.9290(d), existing engine test cells/stands and new or reconstructed engine test cells/stands located at a major source which is used exclusively for testing combustion turbine engines, respectively, do not have to meet the requirements of 40 CFR Part 63, Subpart P and of 40 CFR Part 63, Subpart A.
2. The permittee is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Combustion Turbines, 40 CFR Part 63, Subpart Y. However in accordance with 40 CFR 63.6090(b)(4), existing Stationary Combustion Turbines do not have to meet the requirements of 40 CFR Part 63, Subpart Y and of 40 CFR Part 63, Subpart A.
3. For each new or existing cleaning operation subject to 40 CFR Part 63, Subpart GG, the permittee shall comply with the requirements below unless the cleaning solvent used is identified in 40 CFR 63.744 Table 1, or contains HAP or VOC below the de minimis levels specified in 40 CFR 63.741(f):
 - a. place cleaning solvent-laden cloth, paper, or any other absorbent applicators used for cleaning in bags or other closed containers upon completing their use. Ensure that these bags and containers are kept closed at all times except when depositing or removing these materials from the container. Use bags and containers of such design so as to contain the vapors of the cleaning solvent. Cotton tipped swabs used for very small cleaning operations are exempt from this requirement. [40 CFR 63.744(a)(1)]
 - b. store fresh and spent cleaning solvents, except semi-aqueous solvent cleaners, used in aerospace cleaning operations in closed containers. [40 CFR 63.744(a)(2)]
 - c. conduct the handling and transfer of cleaning solvents to or from enclosed systems, vats, waste containers, and other cleaning operation equipment that hold or store fresh or spent cleaning solvents in such a manner that minimizes spills. [40 CFR 63.744(a)(3)]
4. For each new or existing hand-wipe cleaning operation (excluding cleaning of spray gun equipment) subject to 40 CFR Part 63, Subpart GG, the permittee shall use cleaning solvents that meet one of the requirements specified in (a), (b) or (c) below. Solvent cleaning solutions that contain HAP and VOC below the de minimis levels specified in 40 CFR 63.741(f), and cleaning operations identified in 40 CFR 63.744(e) are exempt from these requirements:
 - a. meet one of the composition requirements in 40 CFR 63.744 Table 1 [40 CFR 63.744(b)(1)];
 - b. have a composite vapor pressure of 45 mm Hg (24.1 in. H₂O) or less at 20 degrees C (68 degrees F) [40 CFR 63.744(b)(2)]; or
 - c. demonstrate that the volume of hand-wipe cleaning solvents used in cleaning operations has been reduced by at least 60 percent from a baseline adjusted for production. The baseline shall be established as part of an approved alternative plan administered by Ohio EPA. The alternative plan shall be submitted by Ohio EPA under section 112(l) of the Federal Clean Air Act and approved by the Administrator of the U.S. EPA, and shall demonstrate that the 60 percent volume reduction in cleaning solvents provides equivalent reductions to the requirements in paragraphs 4.a and 4.b above [40 CFR 63.744(b)(3)].
5. For each new or existing flush cleaning operation subject to 40 CFR Part 63, Subpart GG (excluding those in which a solvent identified in 40 CFR 63.744 Table 1, or a semi-aqueous cleaning solvent is used), the permittee shall empty the used cleaning solvent each time aerospace parts or assemblies, or components of a coating unit (with the exception of spray guns) are flush cleaned into an enclosed container or collection system that is kept closed when not in use or into a system with equivalent emission control [40 CFR 63.744(d)].
6. Except as provided for in 40 CFR 63.741(e), the permittee shall conduct the handling and transfer of waste containing HAP to or from containers, tanks, vats, vessels, and piping systems in such a manner that minimizes spills [40 CFR 63.748].

7. 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 [40 CFR 63.752(b)]:
- 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 [40 CFR 63.752(b)(1)];
 - 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 [40 CFR 63.752(b)(2)(i)];
 - ii. all data and calculations that demonstrate that the cleaning solvent complies with one of the composition requirements [40 CFR 63.752(b)(2)(ii)]; and
 - iii. annual records of the volume of each solvent used, as determined from facility purchase records or usage records [40 CFR 63.752(b)(2)(iii)].
 - 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 requirements in 40 CFR 63.744(b)(2):
 - i. the name of each cleaning solvent used [40 CFR 63.752(b)(3)(i)];
 - ii. the composite vapor pressure of each cleaning solvent used [40 CFR 63.752(b)(3)(ii)];
 - iii. all vapor pressure test results, data, and calculations used to determine the composite vapor pressure of each cleaning solvent [40 CFR 63.752(b)(3)(iii)]; and
 - iv. the amount (in gallons) of each cleaning solvent used each month at each operation [40 CFR 63.752(b)(3)(iv)].
 - 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 [40 CFR 63.752(b)(4)(i)]; and
 - ii. a list of the processes set forth in 40 CFR 63.744(e) to which the cleaning operation applies [40 CFR 63.752(b)(4)(ii)].
8. 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 [40 CFR 63.753(b)(1)(i)];
 - 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) [40 CFR 63.753(b)(1)(ii)];
 - c. if the operations have been in compliance with (a) and (b) 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 [40 CFR 63.753(b)(1)(v)].
9. Ohio EPA has determined that the requirements specifically identified in the following list are not applicable, as the facility existed on the date of issuance of this permit.
- List of Negative Declarations - Ohio and Federal Nonapplicable Requirements
- Emissions Unit / Facility ID Requirement
- Test Stands and Cells OAC rule 3745-17-07(B)
 Test Stands and Cells OAC rule 3745-17-08(B)
 Test Stands and Cells OAC rule 3745-17-10
 Test Stands and Cells OAC rule 3745-17-11
 Test Stands and Cells OAC rule 3745-21-07
 Facility-wide 40 CFR Part 60, Subpart GG
10. This facility is subject to the applicable requirements specified in OAC Chapter 3745-25. In accordance with Ohio EPA Engineering Guide #64, the emission control action programs, as specified in OAC rule 3745-25-03, shall be developed and submitted within 60 days after receiving notification from the Ohio EPA.
11. The permittee shall comply with all applicable provisions specified in 40 CFR Part 82, Subparts B and F as related to the operations at this facility.
12. The following insignificant emissions units are located at this facility:
- B011 - 1.73 mmBtu/hr jet fuel-fired heater #1 (located on test site 6B) [PTI 07-289];
 B012 - 1.73 mmBtu/hr jet fuel-fired heater #2 (located on test site 6B) [PTI 07-289];
 B013 - 4.20 mmBtu/hr jet fuel-fired boiler (located on test site 6B) [PTI 07-289];
 F011 - jet engine test stand 3B2 [PTI 07-211];
 G001 - gasoline dispensing facility with two 4,000-gallon tanks [PTI 07-209];
 T006 - 250,000-gallon internal floating roof jet fuel storage tank #6 [PTI 07-115];
 T007 - 2,500-gallon underground waste fuel storage tank #2 [PTI 07-152];
 T008 - 2,500-gallon underground waste fuel storage tank #1 [PTI 07-152];

T009 - 570-gallon horizontal cylindrical portable used lube oil storage tank;
T010 - 570-gallon horizontal cylindrical portable used lube oil storage tank;
T011 - 570-gallon horizontal cylindrical portable used lube oil storage tank;
T012 - 250,000-gallon internal floating roof jet fuel storage tank #1 [PTI 07-342];
T013 - 250,000-gallon internal floating roof jet fuel storage tank #2 [PTI 07-342]; and
T014 - 1,000-gallon horizontal cylindrical jet fuel tank (located on site 3E).

Each insignificant emissions unit at this facility must comply with all applicable State and federal regulations, and well as any emission limitations and/or control requirements contained within the identified permit to install for the emissions unit. Insignificant emissions units listed above that are not subject to specific permit to install requirements are subject to one or more of the applicable requirements contained in the federally-approved versions of OAC Chapters 3745-17, 3745-18, and/or 3745-21.

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b State Only Enforceable Section

1. The following insignificant emissions units located at this facility are exempt from permit requirements because they are not subject to any applicable requirement (as defined in OAC rule 3745-77-01(H)) or because they meet the "de minimis" criteria established in OAC rule 3745-15-05:

none.

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Part III - Terms and Conditions for Emissions Units

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Facility ID: 0701000001 Emissions Unit ID: B002 Issuance type: Title V Proposed Permit

A. State and Federally Enforceable Section

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.

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 (fugitive emissions only)	OAC rule 3745-31-05(A)(3) (PTI 07-042)	Compliance with this rule includes compliance with OAC rules 3745-17-08, 3745-18-06(E)(2), 3745-21-08 (B), and 3745-23-06(B).

See A.I.2.a and A.I.2.b below.

2. Additional Terms and Conditions

- a. The sulfur dioxide emissions from this emissions unit are due solely to the combustion of liquid jet fuels. Pursuant to OAC rule 3745-18-01(B)(13), the liquid jet fuels and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the jet engines or jet engine components that are to be tested. The total weight of the jet engines or jet engine components greater than 1000 pounds could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the jet engines or jet engine components to establish the sulfur dioxide allowable emission limitation would yield a relatively high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the jet fuels. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit. In addition, any jet engine components that are less than 1000 pounds would be exempt from the requirements of OAC rule 3745-18-06(E) pursuant to OAC rule 3745-18-06(C).
- b. The design of the emissions unit and the technology associated with the current operating practices will satisfy the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

The design of the emissions unit and the technology associated with the current operating practices will satisfy the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06.
- c. This facility is not located in an Appendix A area as described in OAC rule 3745-17-08; therefore, OAC rules 3745-17-07(B) and 3745-17-08(B) do not apply to the fugitive emissions from this emissions unit.
- d. The permittee normally burns commercially available naphtha and kerosene-based distillate fuel (e.g., Jet A, Jet A-1, Jet B, and the military equivalents for these fuels) and natural gas in this emissions

unit. When naphtha and kerosene-based distillate fuels or natural gas are burned in this emissions unit, the emissions unit is considered to be inherently clean.

Because there are no applicable mass or visible emission limitations, there is no need for monitoring, record keeping, and reporting requirements.

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II. Operational Restrictions

1. None

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III. Monitoring and/or Record Keeping Requirements

1. None

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IV. Reporting Requirements

1. None

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V. Testing Requirements

1. None

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VI. Miscellaneous Requirements

1. The Ohio EPA and U.S. EPA recognize that it is not feasible to control combustion turbine engine test stands. For this emissions unit, this does not pose a problem because the emissions unit is not subject to OAC rule 3745-17-11. To address this potential problem for combustion turbine engine test cells that are subject to OAC rule 3745-17-11, the Ohio EPA recognizes that it is appropriate to exempt combustion turbine engine test cells from OAC Chapter 3745-17, and has agreed to proceed with such a rule revision. At that time, combustion turbine engine test cells also will be exempted from OAC Chapter 3745-18 through rulemaking.

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Facility ID: 0701000001 Emissions Unit ID: B002 Issuance type: Title V Proposed Permit

B. State Enforceable Section

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.

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

1. None

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II. Operational Restrictions

- 1. None

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III. Monitoring and/or Record Keeping Requirements

- 1. None

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IV. Reporting Requirements

- 1. None

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V. Testing Requirements

- 1. None

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VI. Miscellaneous Requirements

- 1. None

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Part III - Terms and Conditions for Emissions Units

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Facility ID: 0701000001 Emissions Unit ID: B003 Issuance type: Title V Proposed Permit

A. State and Federally Enforceable Section

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.

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 3 (fugitive emissions only)	OAC rule 3745-31-05(A)(3) (PTI 07-060)	Compliance with this rule includes compliance with OAC rules 3745-17-08, 3745-18-06(E)(2), 3745-21-08 (B), and 3745-23-06(B).

See A.I.2.a and A.I.2.b below.

2. Additional Terms and Conditions

- a. The sulfur dioxide emissions from this emissions unit are due solely to the combustion of liquid jet fuels. Pursuant to OAC rule 3745-18-01(B)(13), the liquid jet fuels and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the jet engines or jet engine components that are to be tested. The total weight of the jet engines or jet engine components greater than 1000 pounds could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the jet engines or jet engine components to establish the sulfur dioxide allowable emission limitation would yield a relatively high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the jet fuels. Therefore, a sulfur dioxide emission limitation has not been established for

this emissions unit. In addition, any jet engine components that are less than 1000 pounds would be exempt from the requirements of OAC rule 3745-18-06(E) pursuant to OAC rule 3745-18-06(C).

- b. The design of the emissions unit and the technology associated with the current operating practices will satisfy the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

The design of the emissions unit and the technology associated with the current operating practices will satisfy the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06.

- c. This facility is not located in an Appendix A area as described in OAC rule 3745-17-08; therefore, OAC rules 3745-17-07(B) and 3745-17-08(B) do not apply to the fugitive emissions from this emissions unit.
- d. The permittee normally burns commercially available naphtha and kerosene-based distillate fuel (e.g., Jet A, Jet A-1, Jet B, and the military equivalents for these fuels) and natural gas in this emissions unit. When naphtha and kerosene-based distillate fuels or natural gas are burned in this emissions unit, the emissions unit is considered to be inherently clean.

Because there are no applicable mass or visible emission limitations, there is no need for monitoring, record keeping, and reporting requirements.

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II. Operational Restrictions

1. None

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III. Monitoring and/or Record Keeping Requirements

1. None

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IV. Reporting Requirements

1. None

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V. Testing Requirements

1. None

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VI. Miscellaneous Requirements

1. The Ohio EPA and U.S. EPA recognize that it is not feasible to control combustion turbine engine test stands. For this emissions unit, this does not pose a problem because the emissions unit is not subject to OAC rule 3745-17-11. To address this potential problem for combustion turbine engine test cells that are subject to OAC rule 3745-17-11, the Ohio EPA recognizes that it is appropriate to exempt combustion turbine engine test cells from OAC Chapter 3745-17, and has agreed to proceed with such a rule revision. At that time, combustion turbine engine test cells also will be exempted from OAC Chapter 3745-18 through rulemaking.

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B. State Enforceable Section

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.

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>
2. Additional Terms and Conditions		
1. None		

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II. Operational Restrictions

1. None

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III. Monitoring and/or Record Keeping Requirements

1. None

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IV. Reporting Requirements

1. None

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V. Testing Requirements

1. None

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VI. Miscellaneous Requirements

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Part III - Terms and Conditions for Emissions Units

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Facility ID: 0701000001 Emissions Unit ID: B008 Issuance type: Title V Proposed Permit

A. State and Federally Enforceable Section

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.

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 cell 5A (stack emissions only)	OAC rule 3745-17-11(B)	None, see A.I.2.a below.
	OAC rule 3745-17-07(A)	None, see A.I.2.b below.
	OAC rule 3745-18-06(E)	See A.I.2.c below.

2. **Additional Terms and Conditions**

- a. The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply because the process weight, as defined in OAC rule 3745-17-01(B)(14), is equal to zero.
- b. 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.
- c. The sulfur dioxide emissions from this emissions unit are due solely to the combustion of liquid jet fuels. Pursuant to OAC rule 3745-18-01(B)(13), the liquid jet fuels and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the jet engines or jet engine components that are to be tested. The total weight of the jet engines or jet engine components greater than 1000 pounds could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the jet engines or jet engine components to establish the sulfur dioxide allowable emission limitation would yield a relatively high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the jet fuels. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit. In addition, any jet engine components that are less than 1000 pounds would be exempt from the requirements of OAC rule 3745-18-06(E) pursuant to OAC rule 3745-18-06(C).
- d. The permittee normally burns commercially available naphtha and kerosene-based distillate fuel (e.g., Jet A, Jet A-1, Jet B, and the military equivalents for these fuels) and natural gas in this emissions unit. When naphtha and kerosene-based distillate fuels or natural gas are burned in this emissions unit, the emissions unit is considered to be inherently clean.

Because there are no applicable mass or visible emission limitations, there is no need for monitoring, record keeping, and reporting requirements.

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. The Ohio EPA and U.S. EPA recognize that it is not feasible to control combustion turbine engine test cells. At the present time this does not pose a problem in complying with OAC rule 3745-17-11 because the uncontrolled mass rate of emission (UMRE) is less than 10 lbs/hr. However, it would become a problem if the UMRE were to exceed 10 lbs/hr due to the testing of larger engines than those currently tested. To

address this potential problem, the Ohio EPA recognizes that it is appropriate to exempt combustion turbine engine test cells from OAC Chapter 3745-17, and has agreed to proceed with such a rule revision. At that time, combustion turbine engine test cells also will be exempted from OAC Chapter 3745-18 through rulemaking.

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Facility ID: 0701000001 Emissions Unit ID: B008 Issuance type: Title V Proposed Permit

B. State Enforceable Section

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.

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>
2.	Additional Terms and Conditions		
1.	None		

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II. Operational Restrictions

- 1. None

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III. Monitoring and/or Record Keeping Requirements

- 1. None

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IV. Reporting Requirements

- 1. None

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V. Testing Requirements

- 1. None

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VI. Miscellaneous Requirements

- 1. None

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Part III - Terms and Conditions for Emissions Units

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Facility ID: 0701000001 Emissions Unit ID: B009 Issuance type: Title V Proposed Permit

A. State and Federally Enforceable Section

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.

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 cell 5B (stack emissions only)	OAC rule 3745-17-11(B) OAC rule 3745-17-07(A) OAC rule 3745-18-06(E)	None, see A.I.2.a below. None, see A.I.2.b below. See A.I.2.c below.

2. Additional Terms and Conditions

- a. The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply because the process weight, as defined in OAC rule 3745-17-01(B)(14), is equal to zero.
- b. 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.
- c. The sulfur dioxide emissions from this emissions unit are due solely to the combustion of liquid jet fuels. Pursuant to OAC rule 3745-18-01(B)(13), the liquid jet fuels and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the jet engines or jet engine components that are to be tested. The total weight of the jet engines or jet engine components greater than 1000 pounds could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the jet engines or jet engine components to establish the sulfur dioxide allowable emission limitation would yield a relatively high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the jet fuels. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit. In addition, any jet engine components that are less than 1000 pounds would be exempt from the requirements of OAC rule 3745-18-06(E) pursuant to OAC rule 3745-18-06(C).
- d. The permittee normally burns commercially available naphtha and kerosene-based distillate fuel (e.g., Jet A, Jet A-1, Jet B, and the military equivalents for these fuels) and natural gas in this emissions unit. When naphtha and kerosene-based distillate fuels or natural gas are burned in this emissions unit, the emissions unit is considered to be inherently clean.

Because there are no applicable mass or visible emission limitations, there is no need for monitoring, record keeping, and reporting requirements.

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II. Operational Restrictions

- 1. None

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III. Monitoring and/or Record Keeping Requirements

- 1. None

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IV. Reporting Requirements

- 1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. The Ohio EPA and U.S. EPA recognize that it is not feasible to control combustion turbine engine test cells. At the present time this does not pose a problem in complying with OAC rule 3745-17-11 because the uncontrolled mass rate of emission (UMRE) is less than 10 lbs/hr. However, it would become a problem if the UMRE were to exceed 10 lbs/hr due to the testing of larger engines than those currently tested. To address this potential problem, the Ohio EPA recognizes that it is appropriate to exempt combustion turbine engine test cells from OAC Chapter 3745-17, and has agreed to proceed with such a rule revision. At that time, combustion turbine engine test cells also will be exempted from OAC Chapter 3745-18 through rulemaking.

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Facility ID: 0701000001 Emissions Unit ID: B009 Issuance type: Title V Proposed Permit

B. State Enforceable Section

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.

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>
2. Additional Terms and Conditions			
1.	None		

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Part III - Terms and Conditions for Emissions Units

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Facility ID: 0701000001 Emissions Unit ID: F007 Issuance type: Title V Proposed Permit

A. State and Federally Enforceable Section

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.

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 (fugitive emissions only)	OAC rule 3745-31-05(A)(3) (PTI 07-385)	<p>Particulate/PM10 emissions shall not exceed 25 lbs/hr and 6.1 tons/yr as a rolling, 12-month summation.</p> <p>Sulfur dioxide (SO2) emissions shall not exceed 200 lbs/hr and 16.6 tons/yr as a rolling, 12-month summation.</p> <p>Nitrogen oxides (NOx) emissions shall not exceed 5900 lbs/hr and 389 tons/yr as a rolling, 12-month summation.</p> <p>Hydrocarbon (HC) emissions shall not exceed 450 lbs/hr and 26.7 tons/yr as a rolling, 12-month summation. See A.I.2.a below.</p> <p>Carbon monoxide (CO) emissions shall not exceed 350 lbs/hr and 300 tons/yr as a rolling, 12-month summation.</p> <p>Visible fugitive particulate emissions shall not exceed 10% opacity as a 6-minute average in any 60-minute observation period.</p> <p>Compliance with this rule also includes compliance with OAC rule 3745-17-08 and 40 CFR Part 52.21. See A.I.2.b below.</p> <p>The SO2 emission limitation specified by this rule is less stringent than the SO2 emission limitations established pursuant to OAC rule 3745-31-05(A)(3).</p>

2. Additional Terms and Conditions

- a. Hydrocarbons, for the purposes of this permit, are defined as any compounds which contain only hydrogen and carbon.
- b. Best Available Control Technology (BACT) for NOx and CO has been determined to be no control.
- c. The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 07-385.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore,

paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 07-385.

- d. The permittee normally burns commercially available naphtha and kerosene-based distillate fuel (e.g., Jet A, Jet A-1, Jet B, and the military equivalents for these fuels) and natural gas in this emissions unit. When naphtha and kerosene-based distillate fuels or natural gas are burned in this emissions unit, the emissions unit is considered to be inherently clean.
- e. This facility is not located in an Appendix A area as described in OAC rule 3745-17-08; therefore, OAC rules 3745-17-07(B) and 3745-17-08(B) do not apply to the fugitive emissions from this emissions unit.

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II. Operational Restrictions

1. The data capture rate for the operating parameters in section A.III.1.a shall be no less than 95%.

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III. Monitoring and/or Record Keeping 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;
 - b. the particulate/PM10, SO₂, NO_x, HC, and CO emission rates, as determined in accordance with the method required in section A.V.1, in lbs/hr (average), tons/month, and tons/yr as a rolling, 12-month summation; and
 - c. the data capture rate specified in section A.II.1 above.
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 naphtha and kerosene-based distillate fuel or natural gas, the permittee shall perform daily checks, when the weather conditions allow, for any visible fugitive particulate emissions from this emissions unit. The presence or absence of any visible fugitive particulate emissions shall be noted in an operations log. If visible fugitive particulate emissions are observed, the permittee shall also note the following 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 fugitive particulate emissions.

If visible fugitive particulate emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident 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 fugitive particulate emissions were believed to be less than the allowable emission limitation, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate in compliance with the allowable emission limitation, or specify the corrective actions that were taken to minimize or eliminate the visible fugitive particulate emissions. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations for this emissions unit from daily to weekly readings if the following conditions are met:

- d. for 1 full quarter this emissions unit's visual observations indicate no visible emissions; and
- e. 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 visual observations from daily to weekly after obtaining 1 full quarter of observations with no visible emissions for this emissions unit.

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IV. 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 particulates/PM10, SO2, NOx, HC, and CO; and
 - b. all periods of time during which the data capture rate specified in section A.II.1 was not attained and the cause and any corrective action(s) taken to regain the specified capture rate.

The quarterly deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.ii of this permit.
2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from 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 (the Portsmouth Local Air Agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

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V. **Testing Requirements**

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

Particulate/PM10 emissions shall not exceed 25 lbs/hr and 6.1 tons/yr as a rolling, 12-month summation.

SO2 emissions shall not exceed 200 lbs/hr and 16.6 tons/yr as a rolling, 12-month summation.

NOx emissions shall not exceed 5900 lbs/hr and 389 tons/yr as a rolling, 12-month summation.

HC emissions shall not exceed 450 lbs/hr and 26.7 tons/yr as a rolling, 12-month summation.

CO emissions shall not exceed 350 lbs/hr and 300 tons/yr 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 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) 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 emission tracking procedures for engines tested at this facility. Emission factors shall be developed for NOx, 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 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 A.III.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.
3. Emission Limitation:

Visible fugitive particulate emissions shall not exceed 10% opacity as a 6-minute average in any 60-minute observation period.

Applicable Compliance Method:

Compliance with this emission limitation shall be demonstrated through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.
4. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

The emission testing shall be conducted, at a minimum, on an annual basis.

The emission testing shall be conducted to demonstrate compliance with the visible particulate emission limitation.

The following test method shall be employed to demonstrate compliance with the allowable visible particulate emission limitation: 40 CFR Part 60, Appendix A, Method 9.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity and burning jet fuel, unless otherwise specified or approved by the Portsmouth Local Air Agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Portsmouth Local Air Agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Portsmouth Local Air Agency's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA and/or the Portsmouth Local Air Agency shall be permitted to witness the test (s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of any control equipment.

A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Portsmouth Local Air Agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Portsmouth Local Air Agency.

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VI. **Miscellaneous Requirements**

1. Jet engine test stand 4A (B005) shall remain shut down.
2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the monitoring and record keeping, reporting, and testing requirements contained in this Title V permit are as stringent as or more stringent than the monitoring and record keeping, reporting, and testing requirements contained in Permit to Install 07-385. The monitoring and record keeping, reporting, and testing requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping, reporting, and testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping, reporting, and testing requirements in the Permit to Install.
3. The Ohio EPA and U.S. EPA recognize that it is not feasible to control combustion turbine engine test stands. For this emissions unit, this does not pose a problem because the emissions unit is not subject to OAC rule 3745-17-11. To address this potential problem for combustion turbine engine test cells that are subject to OAC rule 3745-17-11, the Ohio EPA recognizes that it is appropriate to exempt combustion turbine engine test cells from OAC Chapter 3745-17, and has agreed to proceed with such a rule revision. At that time, combustion turbine engine test cells also will be exempted from OAC Chapter 3745-18 through rulemaking.

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Facility ID: 0701000001 Emissions Unit ID: F007 Issuance type: Title V Proposed Permit

B. State Enforceable Section

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.

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**

1. None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

- 1. None

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IV. **Reporting Requirements**

- 1. None

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V. **Testing Requirements**

- 1. None

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VI. **Miscellaneous Requirements**

- 1. None

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Facility ID: 0701000001 Issuance type: Title V Proposed Permit

Part III - Terms and Conditions for Emissions Units

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Facility ID: 0701000001 Emissions Unit ID: F010 Issuance type: Title V Proposed Permit

A. State and Federally Enforceable Section

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.

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 3D (fugitive emissions only)	OAC rule 3745-31-05(A)(3) (PTI 07-385)	<p>Particulate/PM10 emissions shall not exceed 25 lbs/hr and 6.1 tons/yr as a rolling, 12-month summation.</p> <p>Sulfur dioxide (SO2) emissions shall not exceed 200 lbs/hr and 16.6 tons/yr as a rolling, 12-month summation.</p> <p>Nitrogen oxides (NOx) emissions shall not exceed 5900 lbs/hr and 389 tons/yr as a rolling, 12-month summation.</p> <p>Hydrocarbon (HC) emissions shall not exceed 450 lbs/hr and 26.7 tons/yr as a rolling, 12-month summation. See A.I.2.a below.</p> <p>Carbon monoxide (CO) emissions shall not exceed 350 lbs/hr and 300 tons/yr as a rolling, 12-month summation.</p> <p>Visible fugitive particulate emissions shall not exceed 10% opacity as a 6-minute average in any 60-minute observation period.</p> <p>Compliance with this rule also includes compliance with OAC rule 3745-17-08 and 40 CFR Part 52.21.</p>

40 CFR Part 52.21	See A.I.2.b below.
OAC rules 3745-21-08(B) and 3745-23-06(B)	See A.I.2.c below.
OAC rule 3745-18-06(E)(2)	The SO ₂ emission limitation specified by this rule is less stringent than the SO ₂ emission limitations established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

- a. Hydrocarbons, for the purposes of this permit, are defined as any compounds which contain only hydrogen and carbon.
- b. Best Available Control Technology (BACT) for NO_x and CO has been determined to be no control.
- c. The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 07-385.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 07-385.
- d. The permittee normally burns commercially available naphtha and kerosene-based distillate fuel (e.g., Jet A, Jet A-1, Jet B, and the military equivalents for these fuels) and natural gas in this emissions unit. When naphtha and kerosene-based distillate fuels or natural gas are burned in this emissions unit, the emissions unit is considered to be inherently clean.
- e. This facility is not located in an Appendix A area as described in OAC rule 3745-17-08; therefore, OAC rules 3745-17-07(B) and 3745-17-08(B) do not apply to the fugitive emissions from this emissions unit.

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II. Operational Restrictions

1. The data capture rate for the operating parameters in section A.III.1.a shall be no less than 95%.

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III. Monitoring and/or Record Keeping 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;
 - b. the particulate/PM₁₀, SO₂, NO_x, HC, and CO emission rates, as determined in accordance with the method required in section A.V.1, in lbs/hr (average), tons/month, and tons/yr as a rolling, 12-month summation; and
 - c. the data capture rate specified in section A.II.1 above.
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 naphtha and kerosene-based distillate fuel or natural gas, the permittee shall perform daily checks, when the weather conditions allow, for any visible fugitive particulate emissions from this emissions unit. The presence or absence of any visible fugitive particulate emissions shall be noted in an operations log. If visible fugitive particulate emissions are observed, the permittee shall also note the following 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 fugitive particulate emissions.

If visible fugitive particulate emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident 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 fugitive particulate emissions were believed to be

less than the allowable emission limitation, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate in compliance with the allowable emission limitation, or specify the corrective actions that were taken to minimize or eliminate the visible fugitive particulate emissions. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations for this emissions unit from daily to weekly readings if the following conditions are met:

- d. for 1 full quarter this emissions unit's visual observations indicate no visible emissions; and
- e. 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 visual observations from daily to weekly after obtaining 1 full quarter of observations with no visible emissions for this emissions unit.

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IV. 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 particulates/PM10, SO2, NOx, HC, and CO; and
 - b. all periods of time during which the data capture rate specified in section A.II.1 was not attained and the cause and any corrective action(s) taken to regain the specified capture rate.

The quarterly deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.ii of this permit.
2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from 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 (the Portsmouth Local Air Agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

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V. Testing Requirements

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

Particulate/PM10 emissions shall not exceed 25 lbs/hr and 6.1 tons/yr as a rolling, 12-month summation.

SO2 emissions shall not exceed 200 lbs/hr and 16.6 tons/yr as a rolling, 12-month summation.

NOx emissions shall not exceed 5900 lbs/hr and 389 tons/yr as a rolling, 12-month summation.

HC emissions shall not exceed 450 lbs/hr and 26.7 tons/yr as a rolling, 12-month summation.

CO emissions shall not exceed 350 lbs/hr and 300 tons/yr 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 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) 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 emission tracking procedures for engines tested at this facility. Emission factors shall be developed for NOx, 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 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 A.III.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.
3. Emission Limitation:

Visible fugitive particulate emissions shall not exceed 10% opacity as a 6-minute average in any 60-minute

observation period.

Applicable Compliance Method:

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

4. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

The emission testing shall be conducted, at a minimum, on an annual basis.

The emission testing shall be conducted to demonstrate compliance with the visible particulate emission limitation.

The following test method shall be employed to demonstrate compliance with the allowable visible particulate emission limitation: 40 CFR Part 60, Appendix A, Method 9.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity and burning jet fuel, unless otherwise specified or approved by the Portsmouth Local Air Agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Portsmouth Local Air Agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Portsmouth Local Air Agency's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA and/or the Portsmouth Local Air Agency shall be permitted to witness the test (s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of any control equipment.

A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Portsmouth Local Air Agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Portsmouth Local Air Agency.

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VI. **Miscellaneous Requirements**

1. Jet engine test stand 4A (B005) shall remain shut down.
2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the monitoring and record keeping, reporting, and testing requirements contained in this Title V permit are as stringent as or more stringent than the monitoring and record keeping, reporting, and testing requirements contained in Permit to Install 07-385. The monitoring and record keeping, reporting, and testing requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping, reporting, and testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping, reporting, and testing requirements in the Permit to Install.
3. The Ohio EPA and U.S. EPA recognize that it is not feasible to control combustion turbine engine test stands. For this emissions unit, this does not pose a problem because the emissions unit is not subject to OAC rule 3745-17-11. To address this potential problem for combustion turbine engine test cells that are subject to OAC rule 3745-17-11, the Ohio EPA recognizes that it is appropriate to exempt combustion turbine engine test cells from OAC Chapter 3745-17, and has agreed to proceed with such a rule revision. At that time, combustion turbine engine test cells also will be exempted from OAC Chapter 3745-18 through rulemaking.

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Facility ID: 0701000001 Emissions Unit ID: F010 Issuance type: Title V Proposed Permit

B. State Enforceable Section

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.

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**

- 1. None

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II. **Operational Restrictions**

- 1. None

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III. **Monitoring and/or Record Keeping Requirements**

- 1. None

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IV. **Reporting Requirements**

- 1. None

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V. **Testing Requirements**

- 1. None

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VI. **Miscellaneous Requirements**

- 1. None

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Part III - Terms and Conditions for Emissions Units

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Facility ID: 0701000001 Emissions Unit ID: F012 Issuance type: Title V Proposed Permit

A. State and Federally Enforceable Section

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.

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 3E (fugitive emissions only)	OAC rule 3745-31-05(A)(3) (PTI 07-385)	Particulate/PM10 emissions shall not exceed 25 lbs/hr and 5 tons/yr as a rolling, 12-month summation. Sulfur dioxide (SO2) emissions shall not exceed 200 lbs/hr and 13.7 tons/yr as a rolling, 12-month summation.

Nitrogen oxides (NOx) emissions shall not exceed 5900 lbs/hr and 320 tons/yr as a rolling, 12-month summation.

Hydrocarbon (HC) emissions shall not exceed 450 lbs/hr and 21.9 tons/yr as a rolling, 12-month summation. See A.I.2.a below.

Carbon monoxide (CO) emissions shall not exceed 350 lbs/hr and 246.8 tons/yr as a rolling, 12-month summation.

Visible fugitive particulate emissions shall not exceed 10% opacity as a 6-minute average in any 60-minute observation period.

Compliance with this rule also includes compliance with OAC rule 3745-17-08 and 40 CFR Part 52.21. See A.I.2.b below.

40 CFR Part 52.21

OAC rules 3745-21-08(B) and 3745-

23-06(B)

OAC rule 3745-18-06(E)(2)

See A.I.2.c below.
The SO2 emission limitation specified by this rule is less stringent than the SO2 emission limitations established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

- a. Hydrocarbons, for the purposes of this permit, are defined as any compounds which contain only hydrogen and carbon.
- b. Best Available Control Technology (BACT) for NOx and CO has been determined to be no control.
- c. The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 07-385.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 07-385.
- d. The permittee normally burns commercially available naphtha and kerosene-based distillate fuel (e.g., Jet A, Jet A-1, Jet B, and the military equivalents for these fuels) and natural gas in this emissions unit. When naphtha and kerosene-based distillate fuels or natural gas are burned in this emissions unit, the emissions unit is considered to be inherently clean.
- e. This facility is not located in an Appendix A area as described in OAC rule 3745-17-08; therefore, OAC rules 3745-17-07(B) and 3745-17-08(B) do not apply to the fugitive emissions from this emissions unit.

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II. Operational Restrictions

- 1. The data capture rate for the operating parameters in section A.III.1.a shall be no less than 95%.

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III. Monitoring and/or Record Keeping 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;
 - b. the particulate/PM10, SO2, NOx, HC, and CO emission rates, as determined in accordance with the method required in section A.V.1, in lbs/hr (average), tons/month, and tons/yr as a rolling, 12-month summation; and
 - c. the data capture rate specified in section A.II.1 above.

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 naphtha and kerosene-based distillate fuel or natural gas, the permittee shall perform daily checks, when the weather conditions allow, for any visible fugitive particulate emissions from this emissions unit. The presence or absence of any visible fugitive particulate emissions shall be noted in an operations log. If visible fugitive particulate emissions are observed, the permittee shall also note the following 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 fugitive particulate emissions.

If visible fugitive particulate emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident 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 fugitive particulate emissions were believed to be less than the allowable emission limitation, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate in compliance with the allowable emission limitation, or specify the corrective actions that were taken to minimize or eliminate the visible fugitive particulate emissions. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations for this emissions unit from daily to weekly readings if the following conditions are met:

- d. for 1 full quarter this emissions unit's visual observations indicate no visible emissions; and
- e. 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 visual observations from daily to weekly after obtaining 1 full quarter of observations with no visible emissions for this emissions unit.

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IV. 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 particulates/PM10, SO₂, NO_x, HC, and CO; and
 - b. all periods of time during which the data capture rate specified in section A.II.1 was not attained and the cause and any corrective action(s) taken to regain the specified capture rate.

The quarterly deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.ii of this permit.
2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from 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 (the Portsmouth Local Air Agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

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V. Testing Requirements

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

Particulate/PM10 emissions shall not exceed 25 lbs/hr and 5 tons/yr as a rolling, 12-month summation.

Sulfur dioxide (SO₂) emissions shall not exceed 200 lbs/hr and 13.7 tons/yr as a rolling, 12-month summation.

Nitrogen oxides (NO_x) emissions shall not exceed 5900 lbs/hr and 320 tons/yr as a rolling, 12-month summation.

Hydrocarbon (HC) emissions shall not exceed 450 lbs/hr and 21.9 tons/yr as a rolling, 12-month summation. See A.I.2.a below.

Carbon monoxide (CO) emissions shall not exceed 350 lbs/hr and 246.8 tons/yr 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 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) 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 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 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 A.III.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.

3. Emission Limitation:

Visible fugitive particulate emissions shall not exceed 10% opacity as a 6-minute average in any 60-minute observation period.

Applicable Compliance Method:

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

4. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

The emission testing shall be conducted, at a minimum, on an annual basis.

The emission testing shall be conducted to demonstrate compliance with the visible particulate emission limitation.

The following test method shall be employed to demonstrate compliance with the allowable visible particulate emission limitation: 40 CFR Part 60, Appendix A, Method 9.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity and burning jet fuel, unless otherwise specified or approved by the Portsmouth Local Air Agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Portsmouth Local Air Agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Portsmouth Local Air Agency's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA and/or the Portsmouth Local Air Agency shall be permitted to witness the test (s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of any control equipment.

A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Portsmouth Local Air Agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Portsmouth Local Air Agency.

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VI. **Miscellaneous Requirements**

1. Jet engine test stand 4A (B005) shall remain shut down.
2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the monitoring and record keeping, reporting, and testing requirements contained in this Title V permit are as stringent as or more stringent than the monitoring and record keeping, reporting, and testing requirements contained in Permit to Install 07-385. The monitoring and record keeping, reporting, and testing requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping, reporting, and testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping, reporting, and testing requirements in the Permit to Install.
3. The Ohio EPA and U.S. EPA recognize that it is not feasible to control combustion turbine engine test stands. For this emissions unit, this does not pose a problem because the emissions unit is not subject to OAC rule 3745-17-11. To address this potential problem for combustion turbine engine test cells that are subject to OAC rule 3745-17-11, the Ohio EPA recognizes that it is appropriate to exempt combustion turbine engine test cells from OAC Chapter 3745-17, and has agreed to proceed with such a rule revision. At that time, combustion turbine engine test cells also will be exempted from OAC Chapter 3745-18 through rulemaking.

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Facility ID: 0701000001 Emissions Unit ID: F012 Issuance type: Title V Proposed Permit

B. State Enforceable Section

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.

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

- 1. None

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II. Operational Restrictions

- 1. None

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III. Monitoring and/or Record Keeping Requirements

- 1. None

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IV. Reporting Requirements

- 1. None

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V. Testing Requirements

- 1. None

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VI. Miscellaneous Requirements

- 1. None

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Part III - Terms and Conditions for Emissions Units

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Facility ID: 0701000001 Emissions Unit ID: F013 Issuance type: Title V Proposed Permit

A. State and Federally Enforceable Section

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.

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 6A (fugitive emissions only)	OAC rule 3745-31-05(A)(3) (PTI 07-385)	<p>Particulate/PM10 emissions shall not exceed 25 lbs/hr and 5.5 tons/yr as a rolling, 12-month summation.</p> <p>Sulfur dioxide (SO2) emissions shall not exceed 200 lbs/hr and 15 tons/yr as a rolling, 12-month summation.</p> <p>Nitrogen oxides (NOx) emissions shall not exceed 5900 lbs/hr and 350 tons/yr as a rolling, 12-month summation.</p> <p>Hydrocarbon (HC) emissions shall not exceed 450 lbs/hr and 24 tons/yr as a rolling, 12-month summation. See A.I.2.a below.</p> <p>Carbon monoxide (CO) emissions shall not exceed 350 lbs/hr and 269.9 tons/yr as a rolling, 12-month summation.</p> <p>Visible fugitive particulate emissions shall not exceed 10% opacity as a 6-minute average in any 60-minute observation period.</p> <p>Compliance with this rule also includes compliance with OAC rule 3745-17-08 and 40 CFR Part 52.21.</p>
	40 CFR Part 52.21	See A.I.2.b below.
	OAC rules 3745-21-08(B) and 3745-23-06(B)	See A.I.2.c below.
	OAC rule 3745-18-06(E)(2)	The SO2 emission limitation specified by this rule is less stringent than the SO2 emission limitations established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

- a. Hydrocarbons, for the purposes of this permit, are defined as any compounds which contain only hydrogen and carbon.
- b. Best Available Control Technology (BACT) for NOx and CO has been determined to be no control.
- c. The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 07-385.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 07-385.
- d. The permittee normally burns commercially available naphtha and kerosene-based distillate fuel (e.g., Jet A, Jet A-1, Jet B, and the military equivalents for these fuels) and natural gas in this emissions unit. When naphtha and kerosene-based distillate fuels or natural gas are burned in this emissions unit, the emissions unit is considered to be inherently clean.
- e. This facility is not located in an Appendix A area as described in OAC rule 3745-17-08; therefore, OAC rules 3745-17-07(B) and 3745-17-08(B) do not apply to the fugitive emissions from this emissions unit.

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II. Operational Restrictions

1. The data capture rate for the operating parameters in section A.III.1.a shall be no less than 95%.

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III. Monitoring and/or Record Keeping 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;
 - b. the particulate/PM10, SO₂, NO_x, HC, and CO emission rates, as determined in accordance with the method required in section A.V.1, in lbs/hr (average), tons/month, and tons/yr as a rolling, 12-month summation; and
 - c. the data capture rate specified in section A.II.1 above.
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 naphtha and kerosene-based distillate fuel or natural gas, the permittee shall perform daily checks, when the weather conditions allow, for any visible fugitive particulate emissions from this emissions unit. The presence or absence of any visible fugitive particulate emissions shall be noted in an operations log. If visible fugitive particulate emissions are observed, the permittee shall also note the following 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 fugitive particulate emissions.

If visible fugitive particulate emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident 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 fugitive particulate emissions were believed to be less than the allowable emission limitation, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate in compliance with the allowable emission limitation, or specify the corrective actions that were taken to minimize or eliminate the visible fugitive particulate emissions. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations for this emissions unit from daily to weekly readings if the following conditions are met:

- d. for 1 full quarter this emissions unit's visual observations indicate no visible emissions; and
- e. 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 visual observations from daily to weekly after obtaining 1 full quarter of observations with no visible emissions for this emissions unit.

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IV. 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 particulates/PM10, SO₂, NO_x, HC, and CO; and
 - b. all periods of time during which the data capture rate specified in section A.II.1 was not attained and the cause and any corrective action(s) taken to regain the specified capture rate.

The quarterly deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.ii of this permit.
2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from 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 (the Portsmouth Local Air Agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

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V. Testing Requirements

1. Compliance with the emission limitations in section A.I of these terms and conditions shall be determined in accordance with the following methods:
2. Emission Limitations:
 - Particulate/PM10 emissions shall not exceed 25 lbs/hr and 5.5 tons/yr as a rolling, 12-month summation.
 - Sulfur dioxide (SO₂) emissions shall not exceed 200 lbs/hr and 15 tons/yr as a rolling, 12-month summation.
 - Nitrogen oxides (NO_x) emissions shall not exceed 5900 lbs/hr and 350 tons/yr as a rolling, 12-month summation.
 - Hydrocarbon (HC) emissions shall not exceed 450 lbs/hr and 24 tons/yr as a rolling, 12-month summation. See A.I.2.a below.
 - Carbon monoxide (CO) emissions shall not exceed 350 lbs/hr and 269.9 tons/yr 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 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) 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 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 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 A.III.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.
3. Emission Limitation:
 - Visible fugitive particulate emissions shall not exceed 10% opacity as a 6-minute average in any 60-minute observation period.Applicable Compliance Method:

Compliance with this emission limitation shall be demonstrated through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.
4. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - The emission testing shall be conducted, at a minimum, on an annual basis.
 - The emission testing shall be conducted to demonstrate compliance with the visible particulate emission limitation.
 - The following test method shall be employed to demonstrate compliance with the allowable visible particulate emission limitation: 40 CFR Part 60, Appendix A, Method 9.
 - The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity and burning jet fuel, unless otherwise specified or approved by the Portsmouth Local Air Agency. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Portsmouth Local Air Agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Portsmouth Local Air Agency's refusal to accept the results of the emission test(s).
 - Personnel from the Ohio EPA and/or the Portsmouth Local Air Agency shall be permitted to witness the test (s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of any control equipment.
 - A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Portsmouth Local Air Agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Portsmouth Local Air Agency.

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VI. **Miscellaneous Requirements**

1. Jet engine test stand 4A (B005) shall remain shut down.
2. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the monitoring and record keeping, reporting, and testing requirements contained in this Title V permit are as stringent as or more stringent than the monitoring and record keeping, reporting, and testing requirements contained in Permit to Install 07-385. The monitoring and record keeping, reporting, and testing requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping, reporting, and testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping, reporting, and testing requirements in the Permit to Install.
3. The Ohio EPA and U.S. EPA recognize that it is not feasible to control combustion turbine engine test stands. For this emissions unit, this does not pose a problem because the emissions unit is not subject to OAC rule 3745-17-11. To address this potential problem for combustion turbine engine test cells that are subject to OAC rule 3745-17-11, the Ohio EPA recognizes that it is appropriate to exempt combustion turbine engine test cells from OAC Chapter 3745-17, and has agreed to proceed with such a rule revision. At that time, combustion turbine engine test cells also will be exempted from OAC Chapter 3745-18 through rulemaking.

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Facility ID: 0701000001 Emissions Unit ID: F013 Issuance type: Title V Proposed Permit

B. State Enforceable Section

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.

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**

1. None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None