

Facility ID: 0124010117 Issuance type: Title V Final Permit

This version of facility specific terms and conditions was converted from a database format to an HTML file during an upgrade of the Ohio EPA, Division of Air Pollution Control's permitting software. Every attempt has been made to convert the terms and conditions to look and substantively conform to the permit issued or being drafted in STARS. However, the format of the terms may vary slightly from the original. In addition, although it is not expected, there is a slight possibility that a term and condition may have been inadvertently "left out" of this reproduction during the conversion process. Therefore, if this version is to be used as a starting point in drafting a new version of a permit, it is imperative that the entire set of terms and conditions be reviewed to ensure they substantively mimic the issued permit. The official version of any permit issued final by Ohio EPA is kept in the Agency's Legal section. The Legal section may be contacted at (614) 644-3037.

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.

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION

Facility ID: 0124010117 Issuance type: Title V Final Permit

Part II - Specific Facility Terms and Conditions

a State and Federally Enforceable Section

1. None

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION

Facility ID: 0124010117 Issuance type: Title V Final Permit

b State Only Enforceable Section

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

Z007 - Tank #1;
Z008 - Tank #2;
Z009 - Tank #3; and
B004 - 8.5 mmBtu/hr gas-fired boiler.

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

[Go to Part III for Emissions Unit B001](#)

[Go to Part III for Emissions Unit B002](#)

[Go to Part III for Emissions Unit B003](#)

[Go to Part III for Emissions Unit B005](#)

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION

Facility ID: 0124010117 Issuance type: Title V Final Permit

Part III - Terms and Conditions for Emissions Units

[Go to the top of this document](#)

Facility ID: 0124010117 Emissions Unit ID: B001 Issuance type: Title V Final 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>
Solar Centaur Combustion Turbine #1, 5500 HP	OAC rule 3745-31-05 (PTI 01-6036)	Particulate emissions shall not exceed 1.7 lbs/hr. Sulfur dioxide emissions shall not exceed .03 lb/hr. Volatile organic compound (VOC) emissions shall not exceed 1.7 lbs/hr. Nitrogen oxides (NOx) emissions shall not exceed 8.2 lbs/hr. Carbon monoxide (CO) emissions shall not exceed 14.29 lbs/hr.
	40 CFR Part 60, Subpart GG	See A.I.2 and A.II below. 166.7 parts per million, by volume (ppmv) of NOx at 15% oxygen, on a dry basis.**
	OAC rule 3745-17-11(B)(4)	See A.II through A.V below. The particulate emissions from the engine's exhaust shall not exceed .040 lb/mmBtu of actual heat input.**
	OAC rule 3745-17-07(A)	Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by rule.
	OAC rule 3745-18-06(F)	The sulfur dioxide emissions from the engine's exhaust shall not exceed 0.5 lb/mmBtu of actual heat input.**

2. Additional Terms and Conditions

- a. ** This emission limitation is less stringent than the corresponding limitation(s) specified in PTI #01-6036.
- b. The NOx emissions from this emissions unit shall not exceed 42 ppmv at 15% oxygen, on a dry basis (from PTI #01-6036).
- c. This emissions unit shall be equipped with low NOx combustors (from PTI #01-6036).

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.

II. Operational Restrictions

- 1. The fuel burned in this emissions unit shall not contain sulfur in excess of 0.8%, by weight (from 40 CFR Part 60.333(b)).
- 2. The permittee shall burn only natural gas in this emissions unit (from PTI #01-6036).

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall analyze and maintain records of the fuel-bound sulfur content in accordance with the "custom schedule" approved for this facility pursuant to 40 CFR Part 60.334. In accordance with U.S. EPA guidance, the fuel-bound nitrogen content will be assumed to be zero.
2. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.

IV. Reporting Requirements

1. The permittee shall submit annual deviation reports which identify all periods during which the sulfur content of the fuel burned in this emissions unit exceeded 0.8%, by weight. These reports shall be submitted by January 31 of each year.
2. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.

V. Testing Requirements

1. Compliance with the emission limitation(s) and fuel restriction in Sections A.I. and A.II. of these terms and conditions shall be determined in accordance with the following method(s):
 - a. Emission Limitation:
Particulate emissions shall not exceed 1.7 lbs/hr.

Applicable Compliance Method:
Compliance with this emission limitation shall be determined by multiplying an emission factor of .0193 lb/mmBtu by the maximum actual heat input for this emissions unit (48.4 mmBtu/hr). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.1, Table 3.1-2. If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1-5.
 - b. Emission Limitation:
Sulfur dioxide emissions shall not exceed .03 lb/hr.

Applicable Compliance Method:
Compliance with this emission limitation shall be determined by multiplying an emission factor of .094S lb/mmBtu (where S= the % sulfur in the fuel) by the maximum actual heat input for this emissions unit (48.4 mmBtu/hr). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.1, Table 3.1-2. The sulfur content of the fuel shall be determined in accordance with the procedures specified in Section V.1.c below.
 - c. Fuel Sulfur Content Limitation:
The fuel burned in this emissions unit shall not contain sulfur in excess of 0.8%, by weight.

Applicable Compliance Method:
The permittee shall determine compliance with the fuel sulfur content limitation in accordance with the procedures specified in ASTM D 1072-80, D 3031-81, D 4084-82, or D 3246-81.
 - d. Emission Limitation:
Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
Compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).
 - e. Emission Limitations:
NOx emissions shall not exceed 42 ppmv at 15% oxygen, on a dry basis and 8.2 lbs/hr;
CO emissions shall not exceed 14.29 lbs/hr; and
VOC emissions shall not exceed 1.7 lbs/hr.

Applicable Compliance Method:
The permittee shall conduct, or have conducted, emission testing for this emissions unit to demonstrate compliance with the allowable mass emission rate(s) for NOx, CO, and VOC in accordance with the following requirements:
 1. The emission testing shall be conducted approximately 6 months prior to permit expiration.
 2. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s) for NOx, CO, and VOC: 40 CFR Part 60, Appendix A, Methods 1-4, 7E (NOx), 10 (CO), 18 (VOC), and 40 CFR Part 266, Appendix IX Method 0011 (VOC).

3. The test(s) shall be conducted while the emissions unit is operating at 30, 50, 75 and 100% of peak load or at 4 points in the normal operating range of the gas turbine, including the minimum point in the range and peak load.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Central District Office. 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 Ohio EPA, Central District Office's refusal to accept the results of the emission test(s).

- e. Personnel from the Ohio EPA, Central District Office 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 the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central District Office 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 Ohio EPA, Central District Office.

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.

VI. **Miscellaneous Requirements**

1. None

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION

Facility ID: 0124010117 Issuance type: Title V Final Permit

[Go to the top of this document](#)

Facility ID: 0124010117 Emissions Unit ID: B001 Issuance type: Title V Final 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		

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.

II. **Operational Restrictions**

1. None

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.

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

1. None

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.

IV. **Reporting Requirements**

- 1. None

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.

V. **Testing Requirements**

- 1. None

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.

VI. **Miscellaneous Requirements**

- 1. None

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION

Facility ID: 0124010117 Issuance type: Title V Final Permit

Part III - Terms and Conditions for Emissions Units

[Go to the top of this document](#)

Facility ID: 0124010117 Emissions Unit ID: B002 Issuance type: Title V Final 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>
Solar Centaur Combustion Turbine #2, 5500 HP	OAC rule 3745-31-05 (PTI 01-6036)	Particulate emissions shall not exceed 1.7 lbs/hr. Sulfur dioxide emissions shall not exceed .03 lb/hr. Volatile organic compound (VOC) emissions shall not exceed 1.7 lbs/hr. Nitrogen oxides (NOx) emissions shall not exceed 8.2 lbs/hr. Carbon monoxide (CO) emissions shall not exceed 14.29 lbs/hr.
	40 CFR Part 60, Subpart GG	See A.I.2 and A.II below. 166.7 parts per million, by volume (ppmv) of NOx at 15% oxygen, on a dry basis.**
	OAC rule 3745-17-11(B)(4)	See A.II through A.V below. The particulate emissions from the engine's exhaust shall not exceed .040 lb/mmBtu of actual heat input.**
	OAC rule 3745-17-07(A)	Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by rule.
	OAC rule 3745-18-06(F)	The sulfur dioxide emissions from the engine's exhaust shall not exceed 0.5 lb/mmBtu of actual heat input.**

2. **Additional Terms and Conditions**

- a. ** This emission limitation is less stringent than the corresponding limitation(s) specified in PTI #01-6036.
- b. The NOx emissions from this emissions unit shall not exceed 42 ppmv at 15% oxygen, on a dry basis (from PTI #01-6036).
- c. This emissions unit shall be equipped with low NOx combustors (from PTI #01-6036).

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.

II. **Operational Restrictions**

1. The fuel burned in this emissions unit shall not contain sulfur in excess of 0.8%, by weight (from 40 CFR Part 60.333(b)).
2. The permittee shall burn only natural gas in this emissions unit (from PTI #01-6036).

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.

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

1. The permittee shall analyze and maintain records of the fuel-bound sulfur content in accordance with the "custom schedule" approved for this facility pursuant to 40 CFR Part 60.334. In accordance with U.S. EPA guidance, the fuel-bound nitrogen content will be assumed to be zero.
2. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.

IV. **Reporting Requirements**

1. The permittee shall submit annual deviation reports which identify all periods during which the sulfur content of the fuel burned in this emissions unit exceeded 0.8%, by weight. These reports shall be submitted by January 31 of each year.
2. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.

V. **Testing Requirements**

1. Compliance with the emission limitation(s) and fuel restriction in Sections A.I. and A.II. of these terms and conditions shall be determined in accordance with the following method(s):
 - a. Emission Limitation:
Particulate emissions shall not exceed 1.7 lbs/hr.

Applicable Compliance Method:
Compliance with this emission limitation shall be determined by multiplying an emission factor of .0193 lb/mmBtu by the maximum actual heat input for this emissions unit (48.4 mmBtu/hr). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.1, Table 3.1-2. If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1-5.
 - b. Emission Limitation:
Sulfur dioxide emissions shall not exceed .03 lb/hr.

Applicable Compliance Method:
Compliance with this emission limitation shall be determined by multiplying an emission factor of .094S lb/mmBtu (where S= the % sulfur in the fuel) by the maximum actual heat input for this emissions unit (48.4 mmBtu/hr). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.1, Table 3.1-2. The sulfur content of the fuel shall be determined in accordance with the procedures specified in Section V.1.c below.
 - c. Fuel Sulfur Content Limitation:
The fuel burned in this emissions unit shall not contain sulfur in excess of 0.8%, by weight.

Applicable Compliance Method:
The permittee shall determine compliance with the fuel sulfur content limitation in accordance with the procedures specified in ASTM D 1072-80, D 3031-81, D 4084-82, or D 3246-81.
 - d. Emission Limitation:
Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
Compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).
 - e. Emission Limitations:
NOx emissions shall not exceed 42 ppmv at 15% oxygen, on a dry basis and 8.2 lbs/hr;
CO emissions shall not exceed 14.29 lbs/hr; and
VOC emissions shall not exceed 1.7 lbs/hr.

Applicable Compliance Method:

The permittee shall conduct, or have conducted, emission testing for this emissions unit to demonstrate compliance with the allowable mass emission rate(s) for NOx, CO, and VOC in accordance with the following requirements:

1. The emission testing shall be conducted approximately 6 months prior to permit expiration.
2. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s) for NOx, CO, and VOC: 40 CFR Part 60, Appendix A, Methods 1-4, 7E (NOx), 10 (CO), 18 (VOC), and 40 CFR Part 266, Appendix IX Method 0011 (VOC).
3. The test(s) shall be conducted while the emissions unit is operating at 30, 50, 75 and 100% of peak load or at 4 points in the normal operating range of the gas turbine, including the minimum point in the range and peak load.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Central District Office. 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 Ohio EPA, Central District Office's refusal to accept the results of the emission test(s).

- e. Personnel from the Ohio EPA, Central District Office 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 the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central District Office 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 Ohio EPA, Central District Office.

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.

VI. **Miscellaneous Requirements**

1. None

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION

Facility ID: 0124010117 Issuance type: Title V Final Permit

[Go to the top of this document](#)

Facility ID: 0124010117 Emissions Unit ID: B002 Issuance type: Title V Final 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

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.

II. **Operational Restrictions**

1. None

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.

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

- 1. None

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.

IV. **Reporting Requirements**

- 1. None

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.

V. **Testing Requirements**

- 1. None

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.

VI. **Miscellaneous Requirements**

- 1. None

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION

Facility ID: 0124010117 Issuance type: Title V Final Permit

Part III - Terms and Conditions for Emissions Units

[Go to the top of this document](#)

Facility ID: 0124010117 Emissions Unit ID: B003 Issuance type: Title V Final 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>
Solar Centaur Combustion Turbine #3, 5500 HP	OAC rule 3745-31-05 (PTI 01-6036)	Particulate emissions shall not exceed 1.7 lbs/hr. Sulfur dioxide emissions shall not exceed .03 lb/hr. Volatile organic compound (VOC) emissions shall not exceed 1.7 lbs/hr. Nitrogen oxides (NOx) emissions shall not exceed 8.2 lbs/hr. Carbon monoxide (CO) emissions shall not exceed 14.29 lbs/hr.
	40 CFR Part 60, Subpart GG	See A.I.2 and A.II below. 166.7 parts per million, by volume (ppmv) of NOx at 15% oxygen, on a dry basis.**
	OAC rule 3745-17-11(B)(4)	See A.II through A.V below. The particulate emissions from the engine's exhaust shall not exceed .040 lb/mmBtu of actual heat input.**
	OAC rule 3745-17-07(A)	Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by rule.
	OAC rule 3745-18-06(F)	The sulfur dioxide emissions from the engine's exhaust shall not exceed 0.5 lb/mmBtu of actual heat input.**

- 2. **Additional Terms and Conditions**

- a. ** This emission limitation is less stringent than the corresponding limitation(s) specified in PTI #01-6036.
- b. The NOx emissions from this emissions unit shall not exceed 42 ppmv at 15% oxygen, on a dry basis (from PTI #01-6036).
- c. This emissions unit shall be equipped with low NOx combustors (from PTI #01-6036).

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.

II. Operational Restrictions

1. The fuel burned in this emissions unit shall not contain sulfur in excess of 0.8%, by weight (from 40 CFR Part 60.333(b)).
2. The permittee shall burn only natural gas in this emissions unit (from PTI #01-6036).

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall analyze and maintain records of the fuel-bound sulfur content in accordance with the "custom schedule" approved for this facility pursuant to 40 CFR Part 60.334. In accordance with U.S. EPA guidance, the fuel-bound nitrogen content will be assumed to be zero.
2. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.

IV. Reporting Requirements

1. The permittee shall submit annual deviation reports which identify all periods during which the sulfur content of the fuel burned in this emissions unit exceeded 0.8%, by weight. These reports shall be submitted by January 31 of each year.
2. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.

V. Testing Requirements

1. Compliance with the emission limitation(s) and fuel restriction in Sections A.I. and A.II. of these terms and conditions shall be determined in accordance with the following method(s):
 - a. Emission Limitation:
Particulate emissions shall not exceed 1.7 lbs/hr.

Applicable Compliance Method:
Compliance with this emission limitation shall be determined by multiplying an emission factor of .0193 lb/mmBtu by the maximum actual heat input for this emissions unit (48.4 mmBtu/hr). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.1, Table 3.1-2. If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1-5.
 - b. Emission Limitation:
Sulfur dioxide emissions shall not exceed .03 lb/hr.

Applicable Compliance Method:
Compliance with this emission limitation shall be determined by multiplying an emission factor of .094S lb/mmBtu (where S= the % sulfur in the fuel) by the maximum actual heat input for this emissions unit (48.4 mmBtu/hr). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.1, Table 3.1-2. The sulfur content of the fuel shall be determined in accordance with the procedures specified in Section V.1.c below.
 - c. Fuel Sulfur Content Limitation:
The fuel burned in this emissions unit shall not contain sulfur in excess of 0.8%, by weight.

Applicable Compliance Method:
The permittee shall determine compliance with the fuel sulfur content limitation in accordance with the procedures specified in ASTM D 1072-80, D 3031-81, D 4084-82, or D 3246-81.
 - d. Emission Limitation:
Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by

rule.

Applicable Compliance Method:
 Compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

- e. Emission Limitations:
 NOx emissions shall not exceed 42 ppmv at 15% oxygen, on a dry basis and 8.2 lbs/hr;
 CO emissions shall not exceed 14.29 lbs/hr; and
 VOC emissions shall not exceed 1.7 lbs/hr.

Applicable Compliance Method:
 The permittee shall conduct, or have conducted, emission testing for this emissions unit to demonstrate compliance with the allowable mass emission rate(s) for NOx, CO, and VOC in accordance with the following requirements:

1. The emission testing shall be conducted approximately 6 months prior to permit expiration.
2. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s) for NOx, CO, and VOC: 40 CFR Part 60, Appendix A, Methods 1-4, 7E (NOx), 10 (CO), 18 (VOC), and 40 CFR Part 266, Appendix IX Method 0011 (VOC).
3. The test(s) shall be conducted while the emissions unit is operating at 30, 50, 75 and 100% of peak load or at 4 points in the normal operating range of the gas turbine, including the minimum point in the range and peak load.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Central District Office. 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 Ohio EPA, Central District Office's refusal to accept the results of the emission test(s).

- e. Personnel from the Ohio EPA, Central District Office 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 the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central District Office 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 Ohio EPA, Central District Office.

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.

VI. **Miscellaneous Requirements**

1. None

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION

Facility ID: 0124010117 Issuance type: Title V Final Permit

[Go to the top of this document](#)

Facility ID: 0124010117 Emissions Unit ID: B003 Issuance type: Title V Final 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

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.

II. Operational Restrictions

- 1. None

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.

III. Monitoring and/or Record Keeping Requirements

- 1. None

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.

IV. Reporting Requirements

- 1. None

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.

V. Testing Requirements

- 1. None

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.

VI. Miscellaneous Requirements

- 1. None

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION

Facility ID: 0124010117 Issuance type: Title V Final Permit

Part III - Terms and Conditions for Emissions Units

[Go to the top of this document](#)

Facility ID: 0124010117 Emissions Unit ID: B005 Issuance type: Title V Final 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>
Waukesha Large Bore Auxiliary Generator, Model F18GL, 778HP	OAC rule 3745-31-05 (PTI 01-3870)	Carbon monoxide (CO) emissions shall not exceed 2.22 lbs/hr. Nitrogen oxides (NOx) emissions shall not exceed 3.43 lbs/hr. Volatile organic compound (VOC) emissions shall not exceed .13 ton/yr.
		See A.II.1 below.
	OAC rule 3745-17-11(B)(5)(b)**	The particulate emissions from the engine's exhaust shall not exceed 0.062 lb/mmBtu of actual heat input.
	OAC rule 3745-17-07(A)	Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by rule.

OAC rule 3745-18-06

None, see A.2.b below.

2. Additional Terms and Conditions

- a. **The emission limitation specified in this rule citation has been revised based upon a change in the applicable emission factor contained in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors. The revised rule was adopted by the Director of Ohio EPA in December, 1997. The USEPA has agreed to consider this revised rule as federally enforceable during the time from the effective date of this permit to the effective date of USEPA approval of this limitation as a revision to the Ohio SIP for particulate matter.
- b. Pursuant to OAC rule 3745-18-06(B), this emissions unit is exempt from the emission limitation specified in OAC rule 3745-18-06(G).

[Go to the top of this document](#)[Go to the top of Part III for this Emissions Unit](#)*****THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.*******II. Operational Restrictions**

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

[Go to the top of this document](#)[Go to the top of Part III for this Emissions Unit](#)*****THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.*******III. Monitoring and/or Record Keeping Requirements**

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. The permittee shall maintain daily records of the total operating hours for this emissions unit.

[Go to the top of this document](#)[Go to the top of Part III for this Emissions Unit](#)*****THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.*******IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[Go to the top of this document](#)[Go to the top of Part III for this Emissions Unit](#)*****THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.*******V. Testing Requirements**

1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):
 - a. Emission Limitation:
The particulate emissions from the engine's exhaust shall not exceed 0.062 lb/mmBtu of actual heat input.

Applicable Compliance Method:
Compliance shall be determined by multiplying an emission factor of 4.5 lbs of particulates/mmcu. ft. by the emissions unit's maximum hourly fuel consumption rate (5392.2 cu. ft./hr) and dividing by the emissions unit's maximum heat input capacity (5.5 mmBtu/hr). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1. If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods and procedures specified in OAC rule 3745-17-03(B)(10).
 - b. Emission Limitation:
Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
Compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).
 - c. Emission Limitations:
CO emissions shall not exceed 2.22 lbs/hr.
NOx emissions shall not exceed 3.43 lbs/hr.

Applicable Compliance Method:
Compliance shall be determined by multiplying emission factors of 100 lbs/mmcu. ft. and 21 lbs/mmcu. ft. for NOx and CO, respectively, by the emissions unit's maximum hourly fuel consumption rate (5392.2 cu. ft./hr). These emission factors are specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-2. If required, the permittee shall demonstrate compliance with these emission limitations in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, 7E, and 10.
 - d. Emission Limitation:

VOC emissions shall not exceed .13 ton/yr.

Applicable Compliance Method:
 Compliance shall be determined by multiplying an emission factor of 5.3 lbs/mmcu. ft. by the emissions unit's maximum hourly fuel consumption rate (5392.2 cu. ft./hr) by 8760 and dividing by 2000. This emission factor is specified in USEPA reference document AP-42, Third Edition, Compilation of Air Pollution Emission Factors, Section 1.4.

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.

VI. **Miscellaneous Requirements**

1. None

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION

Facility ID: 0124010117 Issuance type: Title V Final Permit

[Go to the top of this document](#)

Facility ID: 0124010117 Emissions Unit ID: B005 Issuance type: Title V Final 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		

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.

II. **Operational Restrictions**

1. None

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.

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

1. None

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.

IV. **Reporting Requirements**

1. None

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.

V. **Testing Requirements**

1. None

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.

VI. **Miscellaneous Requirements**

1. None