Facility ID: 0448010340 Issuance type: Final State Permit To Operate

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 II" and before "A. Applicable Emissions Limitations..." has been added to aid in document conversion, and was not part of the original issued permit.

Go to Part II for Emissions Unit P001
Go to Part II for Emissions Unit P002
Go to Part II for Emissions Unit P003
Go to Part II for Emissions Unit P004

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Facility ID: 0448010340 Emissions Unit ID: P001 Issuance type: Final State Permit To Operate

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Part II - Special Terms and Conditions

This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

   (a) None.

2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

   (a) None.

A. **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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P001 - No. 1 turbine / 60 kW (0.804 mmBtu/hr) Capstone Energy C60-ICHP MicroTurbine with integral heat recovery	OAC rule 3745-31-05(A)(3) (PTI 04-01372, issued 7/22/2004)	Particulate emissions (PE) emissions shall not exceed 0.002 lb/hr and 0.009 ton/yr. Sulfur dioxide (SO2) emissions shall not exceed 0.003 lb/hr and 0.01 ton/yr. Nitrogen oxide (NOx) emission shall not exceed 0.0104 lb/hr and 0.046 ton/yr. Carbon monoxide (CO) emissions shall not exceed 0.75 lb/hr and 3.3 tons/yr. Volatile organic compound (VOC) emissions shall not exceed 0.31 lb/hr and 1.4 tons/yr. Visible emissions shall not exceed 5% opacity as a 6-minute average.
		See Section A.2.a.
	OAC rule 3745-17-07(A)(1)	See Section A.2.g.
	OAC rule 3745-17-11(B)	See Section A.I.2.c.
	OAC rule 3745-18-06(A)	See Section A.I.2.d.
	OAC rule 3745-21-07(B)	See Section A.I.2.b.
	40 CFR Part 60, Subpart GG	Exempt - see Section A.2.e.
	40 CFR Part 63, Subpart YYYY	Exempt- See Section A.2.f.

2. **Additional Terms and Conditions**

   (a) The hourly and annual emission limitations are based upon the emissions unit's potential to emit. Therefore, there is no need for any monitoring, record keeping, and reporting to ensure compliance with the emission limitations.
   The permittee shall satisfy the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-07(B) by complying with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this permit to install.
   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 rate, as defined in OAC rule 3745-17-01(B)(14), is equal to zero.
   This emissions unit is exempt from the requirements of OAC chapter 3745-18 as long as on any calendar day the fuel burned in this emissions unit has a heat content greater than 950 Btu per standard cubic foot and a sulfur content less than 0.6 pounds per million standard cubic feet and is the

only fuel burned.

On September 1, 2003, OAC rule 3745-18-06 was revised to delete the following phase: "having a heat content greater than 950 Btu per standard cubic foot and a sulfur content less than 0.6 pounds per million standard cubic feet". Therefore, this phase 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 3745-18-06, the requirements still exists as part of the federally-approved SIP for Ohio.
The permittee is exempt from the requirements of this rule, since this emissions unit has a heat input at peak load less than 10 mmBtu/hr.
The permittee is exempt from the requirements of this rule, since this emissions unit is not located at a major source of HAP emissions.
The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

B. **Operational Restrictions**

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

C. **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.

D. **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.

E. **Testing Requirements**

1. Compliance with the emissions limitation(s) in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
Emission Limitation:

5% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures specified in Method 9 of 40 CFR Part 60, Appendix A.
Emission Limitation:

0.75 lb/hr CO emissions

Applicable Compliance Method:

Multiply the CO emission factor supplied by the permittee of 2.49E-02 lb/kWhe times 30 kWhe. The maximum CO emissions occur when the emissions unit is operating at 50% load (30 kWhe). If required, the permittee shall demonstrate compliance using Methods 1 through 4 and 10 of 40 CFR part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.
Emission Limitation:

3.3 tons/yr CO emissions

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate multiplied by 8760 hours per year and divided by 2000 pounds/ton. Therefore, compliance with the hourly CO limit constitutes compliance with the annual CO limit.
Emission Limitation:

0.002 lb/hr PE

Applicable Compliance Method:

Multiply the AP-42 particulate matter emission factor of 0.0019 lb/mmBtu heat input (AP-42 Table 3.1-2a dated 4/2000) by the maximum heat input of 0.804 mmBtu/hr. If required, compliance shall be demonstrated based upon the procedures specified in Methods 1-5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.
Emission Limitation:

0.009 ton/yr PE

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate multiplied by 8760 hours per year and divided by 2000 pounds/ton. Therefore, compliance with the hourly particulate emission limit constitutes compliance with the annual particulate emission limit.
Emission Limitation:

0.0104 lb/hr NOx emissions

Applicable Compliance Method:

Multiply the NOx emission factor supplied by the permittee of 6.94E-04 lb/kWhe times 15 kWhe. The maximum NOx emissions occur when the emissions unit is operating at 25% load (15 kWhe). If required, the permittee shall demonstrate compliance using Methods 1 through 4 and 7 of 40 CFR part 60, Appendix A. Alternative

U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

Emission Limitation:

0.046 ton/yr NOx emissions

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate multiplied by 8760 hours per year and divided by 2000 pounds/ton. Therefore, compliance with the hourly NOx limit constitutes compliance with the annual NOx limit.

Emission Limitation:

0.003 lb/hr SO2 emissions

Applicable Compliance Method:

Multiply the AP-42 sulfur dioxide emission factor of 0.0019 lb/mmBtu heat input (AP-42 Table 3.1-2a dated 4/2000) by the maximum heat input of 0.804 mmBtu/hr. If required, the permittee shall demonstrate compliance using Methods 1 through 6C of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

Emission Limitation:

0.01 ton/yr SO2 emissions

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate multiplied by 8760 hours per year and divided by 2000 pounds/ton. Therefore ,compliance with the hourly emission limitation constitutes compliance with the annual SO2 emission limitation.

Emission Limitation:

0.31 lbs/hr VOC emissions

Applicable Compliance Method:

Multiply the VOC emission factor supplied by the permittee of 6.94E-04 lb/kWhe times 30 kWhe. The maximum VOC emissions occur when the emissions unit is operating at 50% load (30 kWhe). If required, the permittee shall demonstrate compliance using Methods 1 through 4 and 25 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

Emission Limitation:

1.4 tons/yr VOC emissions

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate multiplied by 8760 hours per year and divided by 2000 pounds/ton. Compliance with the hourly VOC emissions limit constitutes compliance with the annual limit.

F. **Miscellaneous Requirements**

1. None

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Facility ID: 0448010340 Emissions Unit ID: P002 Issuance type: Final State Permit To Operate

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Part II - Special Terms and Conditions

This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

(a) None.

2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

(a) None.

A. **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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control

		Measures
P002 - No. 2 turbine / 60 kW (0.804 mmBtu/hr) Capstone Energy C60-ICHP MicroTurbine with integral heat recovery	OAC rule 3745-31-05(A)(3) (PTI 04-01372, issued 7/22/2004)	Particulate emissions (PE) emissions shall not exceed 0.002 lb/hr and 0.009 ton/yr. Sulfur dioxide (SO2) emissions shall not exceed 0.003 lb/hr and 0.01 ton/yr. Nitrogen oxide (NOx) emission shall not exceed 0.0104 lb/hr and 0.046 ton/yr. Carbon monoxide (CO) emissions shall not exceed 0.75 lb/hr and 3.3 tons/yr. Volatile organic compound (VOC) emissions shall not exceed 0.31 lb/hr and 1.4 tons/yr. Visible emissions shall not exceed 5% opacity as a 6-minute average. See Section A.2.a.
	OAC rule 3745-17-07(A)(1)	See Section A.2.g.
	OAC rule 3745-17-11(B)	See Section A.I.2.c.
	OAC rule 3745-18-06(A)	See Section A.I.2.d.
	OAC rule 3745-21-07(B)	See Section A.I.2.b.
	40 CFR Part 60, Subpart GG	Exempt - see Section A.2.e.
	40 CFR Part 63, Subpart YYYY	Exempt- See Section A.2.f.

2. **Additional Terms and Conditions**

(a) The hourly and annual emission limitations are based upon the emissions unit's potential to emit. Therefore, there is no need for any monitoring, record keeping, and reporting to ensure compliance with the emission limitations.
The permittee shall satisfy the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-07(B) by complying with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this permit to install.
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 rate, as defined in OAC rule 3745-17-01(B)(14), is equal to zero.
This emissions unit is exempt from the requirements of OAC chapter 3745-18 as long as on any calendar day the fuel burned in this emissions unit has a heat content greater than 950 Btu per standard cubic foot and a sulfur content less than 0.6 pounds per million standard cubic feet and is the only fuel burned.

On September 1, 2003, OAC rule 3745-18-06 was revised to delete the following phase: "having a heat content greater than 950 Btu per standard cubic foot and a sulfur content less than 0.6 pounds per million standard cubic feet". Therefore, this phase 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 3745-18-06, the requirements still exists as part of the federally-approved SIP for Ohio.
The permittee is exempt from the requirements of this rule, since this emissions unit has a heat input at peak load less than 10 mmBtu/hr.
The permittee is exempt from the requirements of this rule, since this emissions unit is not located at a major source of HAP emissions.
The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

B. **Operational Restrictions**

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

C. **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.

D. **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.

E. **Testing Requirements**

1. Compliance with the emissions limitation(s) in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
Emission Limitation:

5% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures specified in Method 9 of 40 CFR Part 60, Appendix A.
Emission Limitation:

0.75 lb/hr CO emissions

Applicable Compliance Method:

Multiply the CO emission factor supplied by the permittee of 2.49E-02 lb/kWhe times 30 kWhe. The maximum CO emissions occur when the emissions unit is operating at 50% load (30 kWhe). If required, the permittee shall demonstrate compliance using Methods 1 through 4 and 10 of 40 CFR part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.
Emission Limitation:

3.3 tons/yr CO emissions

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate multiplied by 8760 hours per year and divided by 2000 pounds/ton. Therefore, compliance with the hourly CO limit constitutes compliance with the annual CO limit.
Emission Limitation:

0.002 lb/hr PE

Applicable Compliance Method:

Multiply the AP-42 particulate matter emission factor of 0.0019 lb/mmBtu heat input (AP-42 Table 3.1-2a dated 4/2000) by the maximum heat input of 0.804 mmBtu/hr. If required, compliance shall be demonstrated based upon the procedures specified in Methods 1-5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.
Emission Limitation:

0.009 ton/yr PE

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate multiplied by 8760 hours per year and divided by 2000 pounds/ton. Therefore, compliance with the hourly particulate emission limit constitutes compliance with the annual particulate emission limit.
Emission Limitation:

0.0104 lb/hr NOx emissions

Applicable Compliance Method:

Multiply the NOx emission factor supplied by the permittee of 6.94E-04 lb/kWhe times 15 kWhe. The maximum NOx emissions occur when the emissions unit is operating at 25% load (15 kWhe). If required, the permittee shall demonstrate compliance using Methods 1 through 4 and 7 of 40 CFR part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.
Emission Limitation:

0.046 ton/yr NOx emissions

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate multiplied by 8760 hours per year and divided by 2000 pounds/ton. Therefore, compliance with the hourly NOx limit constitutes compliance with the annual NOx limit.
Emission Limitation:

0.003 lb/hr SO2 emissions

Applicable Compliance Method:

Multiply the AP-42 sulfur dioxide emission factor of 0.0019 lb/mmBtu heat input (AP-42 Table 3.1-2a dated 4/2000) by the maximum heat input of 0.804 mmBtu/hr. If required, the permittee shall demonstrate compliance using Methods 1 through 6C of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.
Emission Limitation:

0.01 ton/yr SO2 emissions

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate multiplied by 8760 hours per year and divided by 2000 pounds/ton. Therefore ,compliance with the hourly emission limitation constitutes compliance with the annual SO2 emission limitation.
Emission Limitation:

0.31 lbs/hr VOC emissions

Applicable Compliance Method:

Multiply the VOC emission factor supplied by the permittee of 6.94E-04 lb/kWhe times 30 kWhe. The maximum VOC emissions occur when the emissions unit is operating at 50% load (30 kWhe). If required, the permittee shall demonstrate compliance using Methods 1 through 4 and 25 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.
Emission Limitation:

1.4 tons/yr VOC emissions

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate multiplied by 8760 hours per year and divided by 2000 pounds/ton. Compliance with the hourly VOC emissions limit constitutes compliance with the annual limit.

F. **Miscellaneous Requirements**

1. None

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Facility ID: 0448010340 Emissions Unit ID: P003 Issuance type: Final State Permit To Operate

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Part II - Special Terms and Conditions

This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

(a) None.

2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

(a) None.

A. **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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P003 - No. 3 turbine / 60 kW (0.804 mmBtu/hr) Capstone Energy C60-ICHP MicroTurbine with integral heat recovery	OAC rule 3745-31-05(A)(3) (PTI 04-01372, issued 7/22/2004)	Particulate emissions (PE) emissions shall not exceed 0.002 lb/hr and 0.009 ton/yr. Sulfur dioxide (SO2) emissions shall not exceed 0.003 lb/hr and 0.01 ton/yr. Nitrogen oxide (NOx) emission shall not exceed 0.0104 lb/hr and 0.046 ton/yr. Carbon monoxide (CO) emissions shall not exceed 0.75 lb/hr and 3.3 tons/yr. Volatile organic compound (VOC) emissions shall not exceed 0.31 lb/hr and 1.4 tons/yr. Visible emissions shall not exceed 5% opacity as a 6-minute average. See Section A.2.a.
	OAC rule 3745-17-07(A)(1)	See Section A.2.g.
	OAC rule 3745-17-11(B)	See Section A.I.2.c.
	OAC rule 3745-18-06(A)	See Section A.I.2.d.
	OAC rule 3745-21-07(B)	See Section A.I.2.b.
	40 CFR Part 60, Subpart GG	Exempt - see Section A.2.e.
	40 CFR Part 63, Subpart YYYY	Exempt- See Section A.2.f.

2. **Additional Terms and Conditions**

(a) The hourly and annual emission limitations are based upon the emissions unit's potential to emit. Therefore, there is no need for any monitoring, record keeping, and reporting to ensure compliance with the emission limitations.
The permittee shall satisfy the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-07(B) by complying with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this permit to install.
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 rate,

as defined in OAC rule 3745-17-01(B)(14), is equal to zero.

This emissions unit is exempt from the requirements of OAC chapter 3745-18 as long as on any calendar day the fuel burned in this emissions unit has a heat content greater than 950 Btu per standard cubic foot and a sulfur content less than 0.6 pounds per million standard cubic feet and is the only fuel burned.

On September 1, 2003, OAC rule 3745-18-06 was revised to delete the following phase: "having a heat content greater than 950 Btu per standard cubic foot and a sulfur content less than 0.6 pounds per million standard cubic feet". Therefore, this phase 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 3745-18-06, the requirements still exists as part of the federally-approved SIP for Ohio.

The permittee is exempt from the requirements of this rule, since this emissions unit has a heat input at peak load less than 10 mmBtu/hr.

The permittee is exempt from the requirements of this rule, since this emissions unit is not located at a major source of HAP emissions.

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

B. **Operational Restrictions**

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

C. **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.

D. **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.

E. **Testing Requirements**

1. Compliance with the emissions limitation(s) in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

Emission Limitation:

5% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures specified in Method 9 of 40 CFR Part 60, Appendix A.

Emission Limitation:

0.75 lb/hr CO emissions

Applicable Compliance Method:

Multiply the CO emission factor supplied by the permittee of 2.49E-02 lb/kWhe times 30 kWhe. The maximum CO emissions occur when the emissions unit is operating at 50% load (30 kWhe). If required, the permittee shall demonstrate compliance using Methods 1 through 4 and 10 of 40 CFR part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

Emission Limitation:

3.3 tons/yr CO emissions

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate multiplied by 8760 hours per year and divided by 2000 pounds/ton. Therefore, compliance with the hourly CO limit constitutes compliance with the annual CO limit.

Emission Limitation:

0.002 lb/hr PE

Applicable Compliance Method:

Multiply the AP-42 particulate matter emission factor of 0.0019 lb/mmBtu heat input (AP-42 Table 3.1-2a dated 4/2000) by the maximum heat input of 0.804 mmBtu/hr. If required, compliance shall be demonstrated based upon the procedures specified in Methods 1-5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

Emission Limitation:

0.009 ton/yr PE

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate multiplied by 8760 hours per year and divided by 2000 pounds/ton. Therefore, compliance with the hourly particulate emission limit constitutes compliance with the annual particulate emission limit.

Emission Limitation:

0.0104 lb/hr NOx emissions

Applicable Compliance Method:

Multiply the NOx emission factor supplied by the permittee of 6.94E-04 lb/kWhe times 15 kWhe. The maximum NOx emissions occur when the emissions unit is operating at 25% load (15 kWhe). If required, the permittee shall demonstrate compliance using Methods 1 through 4 and 7 of 40 CFR part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.
Emission Limitation:

0.046 ton/yr NOx emissions

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate multiplied by 8760 hours per year and divided by 2000 pounds/ton. Therefore, compliance with the hourly NOx limit constitutes compliance with the annual NOx limit.
Emission Limitation:

0.003 lb/hr SO2 emissions

Applicable Compliance Method:

Multiply the AP-42 sulfur dioxide emission factor of 0.0019 lb/mmBtu heat input (AP-42 Table 3.1-2a dated 4/2000) by the maximum heat input of 0.804 mmBtu/hr. If required, the permittee shall demonstrate compliance using Methods 1 through 6C of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.
Emission Limitation:

0.01 ton/yr SO2 emissions

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate multiplied by 8760 hours per year and divided by 2000 pounds/ton. Therefore ,compliance with the hourly emission limitation constitutes compliance with the annual SO2 emission limitation.
Emission Limitation:

0.31 lbs/hr VOC emissions

Applicable Compliance Method:

Multiply the VOC emission factor supplied by the permittee of 6.94E-04 lb/kWhe times 30 kWhe. The maximum VOC emissions occur when the emissions unit is operating at 50% load (30 kWhe). If required, the permittee shall demonstrate compliance using Methods 1 through 4 and 25 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.
Emission Limitation:

1.4 tons/yr VOC emissions

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate multiplied by 8760 hours per year and divided by 2000 pounds/ton. Compliance with the hourly VOC emissions limit constitutes compliance with the annual limit.

F. **Miscellaneous Requirements**

1. None

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Facility ID: 0448010340 Emissions Unit ID: P004 Issuance type: Final State Permit To Operate

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Part II - Special Terms and Conditions

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1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

   (a) None.

2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

   (a) None.

A. **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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P004 - No. 4 turbine / 60 kW (0.804 mmBtu/hr) Capstone Energy C60-ICHP MicroTurbine with integral heat recovery	OAC rule 3745-31-05(A)(3) (PTI 04-01372, issued 7/22/2004)	Particulate emissions (PE) emissions shall not exceed 0.002 lb/hr and 0.009 ton/yr. Sulfur dioxide (SO2) emissions shall not exceed 0.003 lb/hr and 0.01 ton/yr. Nitrogen oxide (NOx) emission shall not exceed 0.0104 lb/hr and 0.046 ton/yr. Carbon monoxide (CO) emissions shall not exceed 0.75 lb/hr and 3.3 tons/yr. Volatile organic compound (VOC) emissions shall not exceed 0.31 lb/hr and 1.4 tons/yr. Visible emissions shall not exceed 5% opacity as a 6-minute average.
		See Section A.2.a.
	OAC rule 3745-17-07(A)(1)	See Section A.2.g.
	OAC rule 3745-17-11(B)	See Section A.I.2.c.
	OAC rule 3745-18-06(A)	See Section A.I.2.d.
	OAC rule 3745-21-07(B)	See Section A.I.2.b.
	40 CFR Part 60, Subpart GG	Exempt - see Section A.2.e.
	40 CFR Part 63, Subpart YYYY	Exempt- See Section A.2.f.

2. **Additional Terms and Conditions**

(a) The hourly and annual emission limitations are based upon the emissions unit's potential to emit. Therefore, there is no need for any monitoring, record keeping, and reporting to ensure compliance with the emission limitations.
The permittee shall satisfy the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-07(B) by complying with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this permit to install.
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 rate, as defined in OAC rule 3745-17-01(B)(14), is equal to zero.
This emissions unit is exempt from the requirements of OAC chapter 3745-18 as long as on any calendar day the fuel burned in this emissions unit has a heat content greater than 950 Btu per standard cubic foot and a sulfur content less than 0.6 pounds per million standard cubic feet and is the only fuel burned.

On September 1, 2003, OAC rule 3745-18-06 was revised to delete the following phase: "having a heat content greater than 950 Btu per standard cubic foot and a sulfur content less than 0.6 pounds per million standard cubic feet". Therefore, this phase 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 3745-18-06, the requirements still exists as part of the federally-approved SIP for Ohio.
The permittee is exempt from the requirements of this rule, since this emissions unit has a heat input at peak load less than 10 mmBtu/hr.
The permittee is exempt from the requirements of this rule, since this emissions unit is not located at a major source of HAP emissions.
The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

B. **Operational Restrictions**

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

C. **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.

D. **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.

E. **Testing Requirements**

1. Compliance with the emissions limitation(s) in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
Emission Limitation:

5% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures specified in Method 9 of 40 CFR Part

60, Appendix A.

Emission Limitation:

0.75 lb/hr CO emissions

Applicable Compliance Method:

Multiply the CO emission factor supplied by the permittee of 2.49E-02 lb/kWhe times 30 kWhe. The maximum CO emissions occur when the emissions unit is operating at 50% load (30 kWhe). If required, the permittee shall demonstrate compliance using Methods 1 through 4 and 10 of 40 CFR part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

Emission Limitation:

3.3 tons/yr CO emissions

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate multiplied by 8760 hours per year and divided by 2000 pounds/ton. Therefore, compliance with the hourly CO limit constitutes compliance with the annual CO limit.

Emission Limitation:

0.002 lb/hr PE

Applicable Compliance Method:

Multiply the AP-42 particulate matter emission factor of 0.0019 lb/mmBtu heat input (AP-42 Table 3.1-2a dated 4/2000) by the maximum heat input of 0.804 mmBtu/hr. If required, compliance shall be demonstrated based upon the procedures specified in Methods 1-5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

Emission Limitation:

0.009 ton/yr PE

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate multiplied by 8760 hours per year and divided by 2000 pounds/ton. Therefore, compliance with the hourly particulate emission limit constitutes compliance with the annual particulate emission limit.

Emission Limitation:

0.0104 lb/hr NOx emissions

Applicable Compliance Method:

Multiply the NOx emission factor supplied by the permittee of 6.94E-04 lb/kWhe times 15 kWhe. The maximum NOx emissions occur when the emissions unit is operating at 25% load (15 kWhe). If required, the permittee shall demonstrate compliance using Methods 1 through 4 and 7 of 40 CFR part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

Emission Limitation:

0.046 ton/yr NOx emissions

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate multiplied by 8760 hours per year and divided by 2000 pounds/ton. Therefore, compliance with the hourly NOx limit constitutes compliance with the annual NOx limit.

Emission Limitation:

0.003 lb/hr SO2 emissions

Applicable Compliance Method:

Multiply the AP-42 sulfur dioxide emission factor of 0.0019 lb/mmBtu heat input (AP-42 Table 3.1-2a dated 4/2000) by the maximum heat input of 0.804 mmBtu/hr. If required, the permittee shall demonstrate compliance using Methods 1 through 6C of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

Emission Limitation:

0.01 ton/yr SO2 emissions

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate multiplied by 8760 hours per year and divided by 2000 pounds/ton. Therefore ,compliance with the hourly emission limitation constitutes compliance with the annual SO2 emission limitation.

Emission Limitation:

0.31 lbs/hr VOC emissions

Applicable Compliance Method:

Multiply the VOC emission factor supplied by the permittee of 6.94E-04 lb/kWhe times 30 kWhe. The maximum VOC emissions occur when the emissions unit is operating at 50% load (30 kWhe). If required, the permittee shall demonstrate compliance using Methods 1 through 4 and 25 of 40 CFR Part 60, Appendix A. Alternative

U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

Emission Limitation:

1.4 tons/yr VOC emissions

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate multiplied by 8760 hours per year and divided by 2000 pounds/ton. Compliance with the hourly VOC emissions limit constitutes compliance with the annual limit.

F. **Miscellaneous Requirements**

1. None