Facility ID: 0679030002 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.

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

Facility ID: 0679030002 Emissions Unit ID: P062 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
Shuttle Kiln #2 fired with natural gas	OAC rule 3745-31-05(A)(3) (PTI 06-06707)	Particulate emissions (PE) shall not exceed 0.80 lb/hr and 1.5 tpy. Sulfur dioxide (SO2) emissions shall not exceed 0.56 lb/hr and 1.1 tpy. Carbon monoxide (CO) emissions shall not exceed 1.0 lb/hr and 1.9 tpy. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A).
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-18-06(E)(2)	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. **Additional Terms and Conditions**

   (a) None

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

   PE shall not exceed 0.80 lb/hr and 1.5 tpy.

   Applicable Compliance Method:

   PE may be calculated using the following equations:

(0.96 lb/ton)(0.83 ton/hr) = 0.797 lb/hr
(0.96 lb/ton)(0.36 ton/hr)(8760 hr/yr)(0.0005 ton/lb) = 1.5 tpy

Hourly emission rate calculations are based on 20 tons per cycle placed in the kiln and a 24-hour firing time: 20/24 = 0.83 ton/hr.

Annual emission rate calculations are based on the 56-hour cycle time including cooling, loading/unloading: 20/56 = 0.36 ton/hr.

The PE emission factor was obtained from AP42, 5th Edition, Chapter 11, Table 11.3-2, dated August, 1997.

If required, compliance shall be demonstrated by performing an emission test in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5. No emission testing is specifically required to demonstrate compliance with this limit but, if appropriate, may be requested pursuant to OAC rule 3745-15-04(A).
Emission Limitations:

SO2 emissions shall not exceed 0.56 lb/hr and 1.1 tpy.

Applicable Compliance Method:

SO2 emissions may be calculated using the following equations:

(0.67 lb/ton)(0.83 ton/hr) = 0.556 lb/hr
(0.67 lb/ton)(0.36 ton/hr)(8760 hrs/yr)(0.0005 ton/lb) = 1.1 tpy

Hourly emission rate calculations are based on 20 tons per cycle placed in the kiln and a 24-hour firing time: 20/24 = 0.83 ton/hr.

Annual emission rate calculations are based on the 56-hour cycle time including cooling, loading/unloading: 20/56 = 0.36 ton/hr.

The SO2 emission factor was obtained from AP42, 5th Edition, Chapter 11, Table 11.3-3, dated August, 1997.

If required, compliance shall be demonstrated by performing an emission test in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 6. No emission testing is specifically required to demonstrate compliance with this limit but, if appropriate, may be requested pursuant to OAC rule 3745-15-04(A).
Emission Limitations:

CO emissions shall not exceed 1.0 lb/hr and 1.9 tpy.

Applicable Compliance Method:

CO emissions may be calculated using the following equations:

(1.2 lbs/ton)(0.83 ton/hr) = 0.996 lb/hr
(1.2 lbs/ton)(0.36 ton/hr)(8760 hrs/yr)(0.0005 ton/lb) = 1.9 tpy

Hourly emission rate calculations are based on 20 tons per cycle placed in the kiln and a 24-hour firing time: 20/24 = 0.83 ton/hr.

Annual emission rate calculations are based on the 56-hour cycle time including cooling, loading/unloading: 20/56 = 0.36 ton/hr.

The CO emission factor was obtained from AP42, 5th Edition, Chapter 11, Table 11.3-3, dated August, 1997.

If required, compliance shall be demonstrated by performing an emission test in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 10. No emission testing is specifically required to demonstrate compliance with this limit but, if appropriate, may be requested pursuant to OAC rule 3745-15-04(A).
Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

Compliance shall be demonstrated through visible particulate emission observations performed in accordance with the procedures specified in Method 9 of 40 CFR Part 60, Appendix A and OAC rule 3745-17-03(B)(1). No visible emission testing is specifically required to demonstrate compliance with this limit but, if appropriate, may be requested pursuant to OAC rule 3745-15-04(A).

F. **Miscellaneous Requirements**

1. None