Facility ID: 1431404130 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.

Facility ID: 1431404130 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-Mixing Process (Three Mixers), Batch Weighing, Rotary Dryer, Vibrating Screen and Hammermill	OAC rule 3745-31-05(A)(3) PTI 14-05345	Particulate Emissions (PE) from the skip hoist, mixing process, rotary dryer, belt conveyor, screen and crush, chute and drum shall not exceed 2.37 pounds per hour and 10.4 TPY. Particulate Emissions 10 microns and less in diameter (PM10) from the skip hoist, mixing process, rotary dryer, belt conveyor, screen and crush, chute and drum shall not exceed 0.67 pound per hour and 2.93 TPY. Volatile Organic Compound (VOC) emissions from the rotary dryer and afterburner shall not exceed 2.37 pounds per hour. Rotary dryer and Mixer area afterburner emissions shall not exceed the following: 0.1 lb NOx/MMBtu and 3.88 TPY NOx 0.084 lb CO/MMBtu and 3.26 TPY CO 0.0006 lb SO2/MMBtu, 0.02 TPY SO2 0.0076 lb PM/PM10/MMBtu, 0.29 TPY PM/PM10 The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1), 3745-17-07(B)(1), 3745-17-08(B) and 3745-31-05(C).
	OAC rule 3745-31-05(C)	Volatile Organic Compound (VOC) emissions from the rotary dryer and afterburner shall not exceed 0.86 ton/month and 10.37 TPY.
	OAC rule 3745-17-07(A)(1)	See term A.2.c.
	OAC rule 3745-17-07(B)(1)	See term A.2.b.
	OAC rule 3745-17-08(B)	See term A.2.f.
	OAC rule 3745-17-11	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. **Additional Terms and Conditions**

   (a) Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by compliance with emissions limits, the use of a fabric filter to control the mixing and batching area and a thermal afterburner to control the mixing area (rotary dryer).
   Visible particulate emissions from any fugitive dust emissions points shall not exceed 20 percent opacity, as a three-minute average, except as specified by rule.
   Visible particulate emissions from the stacks associated with this emissions unit shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.
   The hourly emission limitations outlined in term A.1 are based upon the emissions unit's potential to emit. Therefore, no hourly records are required to demonstrate compliance with these limits.

This emissions unit shall be equipped with a control device for VOC emissions that is at least 95% efficient for VOC emissions entering the control device.
The permittee shall minimize or eliminate visible particulate emissions from the batch weighing area.

B. **Operational Restrictions**

1. The pressure drop across the screening dust collector shall be maintained within the range of 1 - 8 inches of water while the emissions unit is in operation.

2. The average combustion temperature within the thermal incinerator, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 1450 degrees Fahrenheit or more than 50 degrees Fahrenheit below the average temperature during the most recent emissions test that demonstrated the emissions unit was in compliance.

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

1. The permittee shall properly operate, and maintain equipment to monitor the pressure drop across the screening dust collector while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the fabric filter on a weekly basis.

2. The permittee shall properly operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal incinerator when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record the following information for each day:

a. All 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit was in operation, was less than 1450 degrees Fahrenheit or more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance.

b. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.

3. The permittee shall collect and record the following information each month for this emissions unit:

a. The emission unit's production rate in tons/month.

b. The total VOC emission rate, in tons per month [a x 73.41 lb VOC/ton organic solvent* x (1-0.95) (or the control efficiency established during the most recent performance test) plus the emissions from the natural gas usage in the rotary dryer and afterburner].
* the emission factor is based on information submitted by the permittee.

D. **Reporting Requirements**

1. The permittee shall submit annual reports which specify the total particulate, PM10 and VOC emissions for this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.

2. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across fabric filter did not comply with the allowable range specified in term B.1.

3. The permittee shall submit deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator does not comply with the temperature limitation specified in term B.2.

4. The permittee shall submit deviation (excursion) reports which identify any exccedance of the monthly VOC emissions limit in term A.1.

5. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

E. **Testing Requirements**

1. Compliance with the visible particulate emissions limitations in terms A.2.b and A.2.c shall be demonstrated by the methods outlined in 40 CFR Part 60, Appendix A, Method 9.

1. Compliance with the emission limitation in Section A.1 of these terms and conditions shall be determined in accordance with the following method(s):

Emissions Limitation:
Particulate Emissions (PE) from the skip hoist, mixing process, rotary dryer, belt conveyor, screen and crush, chute and drum shall not exceed 2.37 pounds per hour.

Applicable Compliance Method:
The PE emissions are calculated by multiplying the hourly production rate in tons per hour times the emission factor times the control efficiency. The emissions factors were provided in PTI application 14-05345 submitted August 7, 2002.
Emissions Limitation:
Particulate Emissions (PE) from the skip hoist, mixing process, rotary dryer, belt conveyor, screen and crush, chute and drum shall not exceed 10.4 TPY.

Applicable Compliance Method:
The PM emissions are calculated by multiplying the annual production rate in tons per year times the emissions factor times the control efficiency and converting the emissions into tons. The emissions factors were provided in PTI application 14-05345 submitted August 7, 2002.
Emissions Limitation:

Particulate Emissions 10 microns and less in diameter (PM10) from the skip hoist, mixing process, rotary dryer, belt conveyor, screen and crush, chute and drum shall not exceed 0.67 pound per hour.

Applicable Compliance Method:
The PM10 emissions are calculated by multiplying the hourly production rate in tons per hour times the emissions factor times the control efficiency. The emissions factors were provided in PTI application 14-05345.
Emissions Limitation:
Particulate Emissions 10 microns and less in diameter (PM10) from the skip hoist, mixing process, rotary dryer, belt conveyor, screen and crush, chute and drum shall not exceed 2.93 TPY.

Applicable Compliance Method:
The PM10 emissions are calculated by multiplying the annual production rate in tons per year times the emissions factor times the control efficiency and converting the emissions into tons. The emissions factors were provided in PTI application 14-05345 submitted August 7, 2002.
Emissions Limitation:
Volatile Organic Compound (VOC) emissions from the rotary dryer and afterburner shall not exceed 2.37 pounds per hour.

Applicable Compliance Method:
The OC emissions are calculated by multiplying the hourly production rate in tons per hour times the emission factor (73.41 lb per ton) times the control efficiency. The emission factor was provided in PTI application 14-05345 submitted August 7, 2002. Also add the emissions from the dryer and afterburner by multiplying the emission factors by the amount of the fuel burned. The emission factors are taken from AP-42, Fifth Edition, Chapter 1.4, Natural Gas Combustion.
Emissions Limitation:
Volatile Organic Compound (VOC) emissions from the rotary dryer and afterburner shall not exceed 0.86 ton/month and 10.37 TPY.

Applicable Compliance Method:
The OC emissions are calculated by multiplying the monthly/annual production rate in tons per month/year times the emissions factor (73.41 lb per ton) times the control efficiency and converting the emissions into tons. The emission factor was provided in PTI 14-05345 submitted August 7, 2002. Also,add the emissions from the dryer and afterburner by multiplying the emission factors by the amount of the fuel burned and converting to tons. The emission factors are taken from AP-42, Fifth Edition, Chapter 1.4, Natural Gas Combustion.
Emissions Limitation:
Rotary dryer and Mixer area afterburner emissions shall not exceed the following:
0.1 lb NOx/MMBtu and 3.88 TPY NOx
0.084 lb CO/MMBtu and 3.26 TPY CO
0.0006 lb SO2/MMBtu, 0.02 TPY SO2
0.0076 lb PM/PM10/MMBtu, 0.29 TPY PM/PM10

Applicable Compliance Method:
The lb/MMBtu emissions are calculated by dividing the emission factors by the heat content of the fuel burned. The emission factors are taken from AP-42, Fifth Edition, Chapter 1.4, Natural Gas Combustion.

The annual emissions are calculated by multiplying the fuel usage times the emission factors and converting the pounds into tons. The emission factors are taken from AP-42, Fifth Edition, Chapter 1.4, Natural Gas Combustion.

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

a. The emission testing shall be conducted approximately 2.5 years after issuance of this permit to operate.

b. The emission testing shall be conducted to demonstrate compliance with the destruction efficiency and VOC emission limitations.

c. The test method(s) which must be employed to demonstrate compliance with the destruction efficiency and VOC emission limitations are specified below. Alternative U.S. EPA approved test methods may be used with prior approval from the Hamilton County Department of Environmental Services.

Method 25, 40 CFR Part 60, Appendix A

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Hamilton County Department of Environmental Services.
Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Hamilton County Department of Environmental Services. 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 Hamilton County Department of Environmental Services refusal to accept the results of the emission test(s).

Personnel from the Hamilton County Department of Environmental Services 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 Hamilton County Department of Environmental Services 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 Hamilton County Department of Environmental Services.

F. **Miscellaneous Requirements**

1. The following terms and conditions of this permit are federally enforceable: A, B, C, D and E.