

Facility ID: 1431392213 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: 1431392213 Emissions Unit ID: P101 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P101 - Granules Spray Drying Pilot Plant including 10 ft. spray drying tower with cyclone, airlift system with cyclone, dry materials dump station vented to a bag house, 4 dry materials storage bins vented to a bag house and a paste mixing crutcher vented to a bag house	OAC rule 3745-31-05(A)(3) (PTI 14-05674)	Particulate emissions (PE) shall not exceed 6.12 pounds per hour and 7.96 tons per year.  Particulate matter 10 microns and less (PM10) shall not exceed 6.12 pounds per hour and 7.96 tons per year.  Volatile Organic Compound (VOC) emissions shall not exceed 4.79 pounds per hour and 6.23 tons per year.
	OAC rule 3745-17-07(A)(1)	See terms and conditions B.1 through B.4.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1). Visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-11(B)	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) 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. Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by compliance with the emissions limitations, production limitations and the use of a baghouse and cyclone to control particulate emissions.

**B. Operational Restrictions**

1. Particulate emissions from the paste making operation shall be vented to a baghouse with a control efficiency of 98%.
2. The pressure drop across the baghouse shall be maintained within the range of 3-10 inches of water, or as specified as the normal operating range by the manufacturer, whichever is more stringent, while the emissions unit is in operation.
3. Particulate emissions from the spray dryer and airlift system shall be vented to a cyclone with a control efficiency of 96.6%.
4. The maximum amount of product produced in this emissions unit shall be limited to 8,320,000 pounds per year.

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

1. The permittee shall maintain monthly records of the total product produced for this emissions unit.
2. The permittee shall properly operate, and maintain equipment to monitor the pressure drop across each baghouse

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 each baghouse on a daily basis.

**D. Reporting Requirements**

1. The permittee shall submit an annual report to the Hamilton County Department of Environmental Services which includes the following information:
  - a. The total weight, in pounds per year, of the product produced in this emission unit during the calendar year; and
  - b. The total volatile organic compound and particulate emissions from this emission unit for the calendar year.The annual report shall be submitted by January 31 of each year and shall cover the previous calendar year.
2. The permittee shall notify the Hamilton County Department of Environmental Services in writing of all periods of time during which the pressure drop across each baghouse did not comply with the allowable range specified in term and condition B.2. A copy of such record [pressure drop deviation (excursion report)] shall be sent to the Hamilton County Department of Environmental Services within 45 days after the exceedance occurs.

**E. Testing Requirements**

1. Emissions Limitations:

Particulate emissions (PE) shall not exceed 6.12 pounds per hour and 7.96 tons per year.

Particulate matter 10 microns and less (PM10) shall not exceed 6.12 pounds per hour and 7.96 tons per year.

Applicable Compliance Method:

  - a. The maximum hourly tower cyclone particulate emissions shall be determined by multiplying 3.06 pounds of particulate per ton of product by the maximum hourly production rate in tons of production per hour and dividing by 2000 pounds per ton, as provided in PTI application 14-05674 as submitted on January 31, 2005.
  - b. The maximum hourly airlift cyclone particulate emissions shall be determined by multiplying 0.404 pounds of particulate per ton of product by the maximum hourly tons of production per hour and dividing by 2000 pounds per ton, as provided in PTI application 14-05674 as submitted on January 31, 2005.
  - c. The maximum hourly particulate emissions from the dump station shall be determined by multiplying the product throughput by the percent of dry raw materials in the product then by the percentage of material that goes to the baghouse then by (1 - control efficiency/100), as provided in PTI application 14-05674 as submitted on January 31, 2005.
  - d. The maximum hourly particulate emissions from the dry materials bins shall be determined by multiplying the product throughput by the percent of dry raw materials in the product then by the percentage of material that goes to the baghouse then by (1 - control efficiency/100), as provided in PTI application 14-05674 as submitted on January 31, 2005.
  - e. The maximum hourly particulate emissions from the crutcher shall be determined by multiplying the product throughput by the percent of dry raw materials in the product then by the percentage of material that goes to the baghouse then by (1 - control efficiency/100), as provided in PTI application 14-05674 as submitted on January 31, 2005.
  - f. Total hourly particulate emissions shall be determined by the summation of methods a. through e. above. PM10 emissions are assumed to equal the PE emission rate.
  - g. Annual emissions shall be determined by utilizing the annual production amount and the methods described in a. through e. above. The emissions factors were provided in PTI application 14-05674 submitted January 31, 2005.
2. Emissions Limitations:

Volatile Organic Compound (VOC) emissions shall not exceed 4.79 pounds per hour and 6.23 tons per year.

Applicable Compliance Method:  
The hourly emission limitation is based on stack test data provided by the permittee. Annual emissions shall be determined by multiplying the emissions factor by the annual production amount and dividing by 2000 lbs/ton. The emissions factors were provided in PTI application 14-05674 submitted January 31, 2005.
3. Compliance with the operational limitation in term and condition B.2 shall be determined by the monitoring and records maintained pursuant to term and condition C.2.
4. If required, compliance with the particulate control efficiency limitations in terms and conditions B.1 and B.3 shall be determined in accordance with Test Methods 1-5 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 2002.
5. Compliance with the production limitation in term and condition B.4 shall be determined by the monitoring and records maintained pursuant to term and condition C.1.
6. Emission Limitation:

Visible particulate emission from the following stacks associated with emissions unit P101 shall not exceed twenty percent opacity as a six-minute average, except as specified by rule:

spray drying tower and airlift system cyclone outlet; dry materials dump station and paste mixing crutcher baghouse outlet; and storage bin filter vents.

Applicable Compliance Method:  
Compliance shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July

1, 2002.

F. **Miscellaneous Requirements**

1. None