

Facility ID: 0616010022 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: 0616010022 Emissions Unit ID: P901 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>
Material Handling (Including Silo Hopper Loading, Paddle Tank / Hopper Loading and Mixing Tank Loading) Controlled with Fabric Filters	OAC rule 3745-31-05(A)(3) (PTI 06-07014)	Particulate emissions (PE) from the fabric filter exhaust stacks shall not exceed 0.05 lb/hr and 0.15 ton/yr.  Total PE shall not exceed 1.1 tons/yr.  Visible particulate emissions from the filter exhaust stacks shall not exceed 5% opacity as a 6-minute average. See B.1. below. The emission limitations specified by these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-31-02(A)(2) OAC rule 3745-17-07(A) OAC rule 3745-17-11(B)(1)	

**2. Additional Terms and Conditions**

- (a) The permittee shall employ best available control measures for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to maintain enclosures to capture fugitive emissions from the mixing tanks, silo hopper and paddle tank hopper and vent emissions to fabric filters to ensure compliance. The permittee has committed to maintain an enclosure (lid) on the paddle tank. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance. Implementation of the above-mentioned control measure(s) in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-31-05.

**B. Operational Restrictions**

1. The maximum annual paddle tank hopper throughput shall not exceed 750 tons, based upon a rolling, 12-month summation.

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

1. The permittee shall perform weekly checks, when the emissions unit is in operation (during loading) and when the weather conditions allow, for any visible particulate emissions from the fabric filter exhaust stacks. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.
2. The permittee shall collect and record the following information on a monthly basis for this emissions unit:

- a. the paddle tank hopper throughput, in tons; and
- b. the rolling, 12-month summation of the paddle tank hopper throughput, in tons.

**D. Reporting Requirements**

1. The permittee shall submit semiannual written reports which:
  - a. identify all weeks during which any visible particulate emissions were observed from the fabric filter exhaust stacks for this emissions unit; and
  - b. describe any corrective actions taken to eliminate the visible particulate emissions.

These reports shall be submitted to the Ohio EPA Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month paddle tank hopper throughput limitation. The quarterly reports shall be submitted in accordance with the General Terms and Conditions of this permit.

**E. Testing Requirements**

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

PE from the fabric filter exhaust stacks shall not exceed 0.05 lb/hr and 0.15 ton/yr.

Compliance Determination:

Compliance with the lb/hr emission limitation shall be demonstrated by the following one time calculation using the product loading emission factor from AP-42 Table 11.17-4, February, 1998, the maximum production rate, and the design characteristics of the associated control equipment. If required, the permittee shall demonstrate compliance with the mass emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5.

$$\begin{aligned} \text{PE(lb/hr)} &= \text{Silo Hopper} + \text{Paddle Tank Hopper} + \text{Mixing Tanks(2)} \\ &= [0.002 \text{ gr/cfm} \times 261 \text{ cfm} \times 60 \text{ min/hr} \times 0.000142857 \text{ lb/gr}] + [(0.61 \text{ lb PE/ton loaded} \times 32.76 \text{ tons/day loaded} \times 0.0417 \text{ day/hr} \times 0.01 \text{ (99\% filter efficiency)}) + [2 \times (0.00053 \text{ gr/cfm} \times 3000 \text{ cfm} \times 60 \text{ min/hr} \times 0.000142857 \text{ lb/gr})] \\ &= [0.0045 \text{ lb/hr}] + [0.0084 \text{ lb/hr}] + [2 \times 0.014 \text{ lb/hr}] \\ &= 0.041 \text{ lb/hr} \end{aligned}$$

Compliance with the annual emission limitation shall be demonstrated by the following one time calculation using the maximum hourly emission rates for the silo hopper and mixing tanks and the product loading emission factor from AP-42 Table 11.17-4, February, 1998, operational restriction and design characteristics of the associated control equipment for the paddle tank hopper.

$$\begin{aligned} \text{PE(ton/yr)} &= \text{Silo Hopper} + \text{Paddle Tank Hopper} + \text{Mixing Tanks(2)} \\ &= [0.0045 \text{ lb/hr} \times 8760 \text{ hrs/yr} \times 0.0005 \text{ ton/lb}] + [(0.61 \text{ lb PE/ton loaded} \times 750 \text{ tons/yr loaded} \times 0.01 \text{ (99\% filter efficiency)} \times 0.0005 \text{ ton/lb}) + [2 \times (0.014 \text{ lb/hr} \times 8760 \text{ hrs/yr} \times 0.0005 \text{ ton/lb})] \\ &= [0.02] + [0.003] + [2 \times 0.06] \\ &= 0.143 \text{ ton/yr} \end{aligned}$$

Emission Limitation:

Total PE shall not exceed 1.1 tons/yr.

Compliance Determination:

Compliance with the annual emission limitation shall be demonstrated by the following one time calculation using the product loading emission factor from AP-42 Table 11.17-4, February, 1998, the maximum annual production, and the design characteristics (capture and control efficiency) of the associated control equipment.

$$\begin{aligned} \text{PE (total ton/yr)} &= \text{PE (stack + fugitive)} = [0.143 \text{ ton/yr}] + [\text{fugitive}] \\ &= [0.143 \text{ ton/yr}] + [(\text{Silo Hopper Fugitive}) + (\text{Paddle Tank Hopper Fugitive}) + (\text{Paddle Tank Loading}) + (2 \times \text{Mixing Tank Loading Fugitive})] \\ &= [0.143 \text{ ton/yr}] + [(18250 \text{ tons loaded/yr} \times 0.61 \text{ lb PE/ton loaded} \times 0.10 \text{ (90\% capture)} \times 0.0005 \text{ ton/lb}) + (750 \text{ tons loaded/yr} \times 0.61 \text{ lb PE/ton loaded} \times 0.10 \text{ (90\% capture)} \times 0.0005 \text{ ton/lb}) + (750 \text{ tons loaded/yr} \times 0.61 \text{ lb PE/ton loaded} \times 0.10 \text{ (90\% capture)} \times 0.0005 \text{ ton/lb}) \\ &= [0.143 \text{ ton/yr}] + [(0.557) + (0.023) + (0.229) + (2 \times 0.04)] \\ &= 1.032 \text{ ton/yr} \end{aligned}$$

Emission Limitation:

Visible particulate emissions from the filter stacks shall not exceed 5% opacity as a 6-minute average.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the visible particulate emission observations specified in Test Method 9.

**F. Miscellaneous Requirements**

1. None