

Facility ID: 1652000045 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: 1652000045 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>
Aluminum shredder system with a maximum process weight rate capacity of 3000 lbs/hr controlled by a fabric filter	OAC rule 3745-31-05 (PTI 16-1331)	2.5 lbs/hr of particulate matter
		5% opacity as a 6-minute average, for stack emissions
		5% opacity as a 3-minute average, for fugitive emissions
	OAC rule 3745-17-07	See A.2.b below.
	OAC rule 3745-17-08	See A.2.b below.
	OAC rule 3745-17-11	See A.2.b below.

2. Additional Terms and Conditions

- (a) The permittee shall employ best available technology (BAT) to control particulate matter emissions from this emissions unit. The control technology shall include the following:
 - i. the employment of a properly installed fabric filter (baghouse), in accordance with the manufacturer's recommendations, instructions, and operating manual(s), to adequately control particulate emissions; and
 - ii. the employment of properly installed hoods, ducts, fans, and other equipment, in accordance with the manufacturer's recommendations, instructions, and operating manual(s), to adequately enclose, contain, capture, and vent particulate matter to the baghouse. The particulate matter emission limitation(s) required by this rule are less stringent than the particulate matter emission limitation(s) required by best available technology. The particulate matter emission limit in this permit is greater than the emissions unit's potential to emit. Therefore, no recordkeeping, deviation reporting, or emissions calculations are required to demonstrate compliance with this limit.

B. Operational Restrictions

1. The permittee shall not operate this emissions unit if the presence of abnormal (i.e., not representative of normal operations) visible particulate emissions, stack or fugitive, are detected by the visible particulate monitoring requirements in Section C.1.

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any abnormal (i.e., not representative of normal operations) visible particulate emissions, stack or fugitive, from this emissions unit. The presence of abnormal visible emissions shall be noted in an operations log. If abnormal visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the cause of the abnormal visible emissions;
 - b. the total duration of any abnormal visible emission incident; and
 - c. any corrective actions taken to eliminate the abnormal visible emissions.

D. Reporting Requirements

1. The permittee shall submit semiannual written reports which (a) identify all days during which any abnormal (i.e., not representative of normal operations) visible particulate emissions, stack or fugitive, were observed from this emissions unit and (b) describe any corrective actions taken to eliminate the abnormal visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

E. Testing Requirements

1. Compliance with the visible particulate emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following methods:

Emission Limitation:

5% opacity as a 6-minute average, for stack emissions

Applicable Compliance Method:

OAC rule 3745-17-03(B)(1)

Emission Limitation:

5% opacity as a 3-minute average, for fugitive emissions

Applicable Compliance Method:

OAC rule 3745-17-03(B)(1)

Emission Limitation:

2.5 lbs/hr of particulate matter

Applicable Compliance Method:

Compliance with this particulate matter emission limitation shall be demonstrated by the following potential to emit calculations.

Based on a maximum process weight rate (PWRmax) capacity of 3000 lbs/hr (1.5 tons/hr) of aluminum material processed, as reported in the application, and a particulate matter emission factor of 0.2 lb/ton of aluminum material processed, developed from a material balance approach as shown below*, potential hourly particulate matter emissions (PTEh) are 0.3 lb/hr.

$$PTEh = (1.5 \text{ tons/hr})(0.2 \text{ lb/ton}) = 0.3 \text{ lb/hr}$$

The permittee employs a cyclone, with a reported overall control efficiency of 90%, to collect and remove aluminum fines (of economic value) from the process air stream after size reduction by the shredder system prior to packaging and sale to business. In effect, the cyclone serves as a crucial part of the process and minimizes aluminum material waste.

The baghouse, on the otherhand, primarily serves as the pollution control equipment for the emissions unit. The baghouse controls most of the fine dust of no economic value that escapes the cyclone and would be emitted as particulates from the emissions unit. The overall control efficiency of the baghouse is reported by the permittee to be 99.9%. The permittee monitors the performance of the baghouse and associated control equipment by daily visual inspections.

*Emission factor development:

$$EF = (PWRmax)(T)(1 - C)(1 - B)/(PWRmax),$$

where:

EF = 0.2 pound of particulates/ton of aluminum material processed;

PWRmax = 1.5 tons of aluminum material processed/hr;

T = 2000 pounds/ton;

C = 0.9, overall control efficiency of 90% for the cyclone; and

B = 0.999, overall control efficiency of 99.9% for the baghouse.

F. Miscellaneous Requirements

1. The permittee is hereby notified that this permit, and all agency records concerning the operation of this permitted emissions unit, are subject to public disclosure in accordance with OAC rule 3745-49-03.
2. The permittee shall comply with any applicable State and federal requirements governing the storage, treatment, transport and disposal of any waste material generated by the operation of the emissions unit.