

Facility ID: 1677010219 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: 1677010219 Emissions Unit ID: P055 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-Melting Reveratory Furnace - natural gas-fired, maximum rated heat input @ 4.0 million Btu/hr, batch operation, maximum process weight rate capacity @ 1300 lbs/hr, air pollutant emissions uncontrolled and hooded/vented to a stack	OAC rule 3745-31-05 (PTI 16-02026)	20% opacity from any stack, as a 6-minute average
		1.0 lb/hr and 4.4 tpy of particulate matter
		0.8 lb/hr and 3.5 tpy of nitrogen oxides
	OAC rule 3745-17-07	See sections A.2 and B.1 through B.6 below for additional requirements of OAC rule 3745-31-05. The visible particulate emissions limitation required by OAC rule 3745-17-07 is less stringent than the visible particulate emissions limitation established pursuant to OAC rule 3745-31-05.
	OAC rule 3745-17-11	The mass particulate emissions limitation required by OAC rule 3745-17-11 is less stringent than the mass particulate emissions limitation established pursuant to OAC rule 3745-31-05.

2. Additional Terms and Conditions

- (a) The permittee shall properly operate, and maintain the emissions unit covered under this permit to the extent possible with good engineering practice. Based upon application data, the above particulate matter and nitrogen oxides emission limitations (regulated under OAC rule 3745-31-05) are greater than the potential to emit for this emissions unit. Therefore, no recordkeeping, reporting, nor emissions calculations are required to demonstrate compliance with these emission limitations.

B. Operational Restrictions

1. The permittee shall employ only natural gas as fuel in this emissions unit.
2. The aluminum melting furnace shall only be charged with pure, clean, and dry bar stock and sawed-off pieces of solid aluminum. Aluminum chips or turnings from machining shall not be employed in this emissions unit.
3. The permittee shall not process materials containing oil, grease, paint, plastics or paper in this emissions unit.
4. Aluminum containing heavy metals, such as lead, cadmium, or mercury, shall not be processed in this emissions unit.
5. The permittee shall not process articles that contain polychlorinated biphenyls (PCBs) or polyvinyl chloride (PVC) in this emissions unit.
6. The permittee shall not use chlorine gas for any purpose in this emissions unit.

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall document the usage (and the quantity in pounds) of chlorine gas for any purpose in this emissions unit.

D. Reporting Requirements

1. The permittee shall notify the Director (the appropriate District Office or local air agency) in writing of any record in which chlorine gas was used for any purpose in this emissions unit. The notification shall include a copy of such record and shall be sent to the Director (the appropriate District Office or local air agency) within 30 days after the chlorine gas usage.

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 Limitation: 20% opacity from any stack, as a 6-minute average

Applicable Compliance Method: USEPA Method 9, 40 CFR Part 60, Appendix A.
Emission Limitations: 1.0 lb/hr and 4.4 tpy of particulate matter

Applicable Compliance Method: The permittee shall demonstrate compliance with the above limitations based upon the calculation of hourly and yearly potential particulate matter emissions specified below:

$$\begin{aligned} \text{PTEh} &= (\text{PWRmax}) \times (\text{EFp}) + (\text{Hlmax}) \times (\text{EFc}) \\ \text{PTEy} &= (\text{PTEh}) \times (8760 \text{ hrs/yr}) \times (1 \text{ ton}/2000 \text{ lbs}) \end{aligned}$$

where:

PTEh = 0.8 lb/hr of particulate matter (hourly potential to emit);
PTEy = 3.4 tpy of particulate matter (yearly potential to emit);
PWRmax = 1300 lbs/hr of aluminum metal processed (maximum process weight rate capacity);
EFp = 1.1 lbs of particulates/ton of aluminum metal processed;
Hlmax = 4.0 mmBtu/hr (maximum rated heat input); and
EFc = 0.017 lb of particulates/mmBtu heat input

[Note: the above emission factors, EFp and EFc are taken from STAPPA/ALAPCO, published 5/30/91, Tables 11-1 and 11-2.]

If necessary, the permittee may be required to demonstrate compliance of the above limitations by testing in accordance with USEPA Method 5, 40 CFR Part 60, Appendix A.
Emission Limitations: 0.8 lb/hr and 3.5 tpy of nitrogen oxides

Applicable Compliance Method: The permittee shall demonstrate compliance with the above limitations based upon the calculation of hourly and yearly potential nitrogen oxides emissions specified below:

$$\begin{aligned} \text{PTEh} &= (\text{Hlmax}) \times (\text{EFc}) \\ \text{PTEy} &= (\text{PTEh}) \times (8760 \text{ hrs/yr}) \times (1 \text{ ton}/2000 \text{ lbs}) \end{aligned}$$

where:

PTEh = 0.6 lb/hr of nitrogen oxides (hourly potential to emit);
PTEy = 2.6 tpy of nitrogen oxides (yearly potential to emit);
Hlmax = 4.0 mmBtu/hr (maximum rated heat input); and
EFc = 0.150 lb of nitrogen oxides/mmBtu heat input

[Note: the above emission factor, EFc is taken from STAPPA/ALAPCO, published 5/30/91, Table 11-1.]

If necessary, the permittee may be required to demonstrate compliance of the above limitations by testing in accordance with USEPA Method 7E, 40 CFR Part 60, Appendix A.

F. Miscellaneous Requirements

1. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic compound will be less than 1.0 ton. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any pollutant that has a listed TLV to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.