

Facility ID: 1652100075 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.

[Go to Part II for Emissions Unit F001](#)  
[Go to Part II for Emissions Unit P901](#)

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Facility ID: 1652100075 Emissions Unit ID: F001 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>
#1 Schafer, aluminum melting furnace	OAC rule 3745-31-05 (PTI 16-922)	0.5 lb/hr of chlorine 0.3 lb/hr of hydrogen chloride 0.9 TPY of particulate matter See A.2.a below.
	OAC rule 3745-17-07(A)	See A.2.b below.
	OAC rule 3745-17-07(B)	See A.2.d below.
	OAC rule 3745-17-08(B)	See A.2.c below.
	OAC rule 3745-17-11	See A.2.d below.

**2. Additional Terms and Conditions**

- (a) Visible particulate emissions from any fugitive dust source shall not exceed 10% opacity as a 3-minute average.  
 Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average.  
 The permittee shall employ reasonably available control measures to minimize or eliminate visible emissions of fugitive dust.  
 The emissions limit based on this applicable rule is less stringent than the limit established pursuant to OAC rule 3745-31-05.

**B. Operational Restrictions**

1. The emissions unit is limited to utilization of natural gas as fuel.
2. The emissions unit shall be charged with clean raw materials (i.e., aluminum pigs, clean foundry returns). Aluminum scrap or contaminated foundry returns shall not be charged.

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

1. None

**D. Reporting Requirements**

1. None

**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:  
 10% opacity as a 3-minute average  
 Applicable Compliance Method:  
 OAC rule 3745-17-03(B)(3)  
 Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

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

0.5 lb/hr of chlorine

Applicable Compliance Method:

Stack testing may be required in accordance with approved USEPA test methods and procedures.  
Emission Limitation:

0.3 lb/hr of hydrogen chloride

Applicable Compliance Method:

Stack testing may be required in accordance with approved USEPA test methods and procedures.  
Emission Limitation:

0.9 TPY of particulate matter

Applicable Compliance Method:

Stack testing may be required in accordance with test method(s) and produres specified in OAC rule 3745-17-03(B)(10).

**F. Miscellaneous Requirements**

1. None

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**Facility ID: 1652100075 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>
Sand unloading storage, mold sand preparation and mold makeup	OAC rule 3745-31-05 (PTI 16-922)	2.0 lbs/hr of particulate matter 2.55 TPY of particulate matter See A.2.a below.
	OAC rule 3745-17-07(A)	See A.2.c below.
	OAC rule 3745-17-07(B)	See A.2.d below.
	OAC rule 3745-17-08(B)	See A.2.b below.
	OAC rule 3745-17-11	See A.2.e below.

2. **Additional Terms and Conditions**
  - (a) The sand storage silo(s) shall be equipped with a fabric filter to control particulate emissions from the pneumatic conveying of sand from carrier to silo(s). The equipment employed for mold sand preparation and makeup shall be of a design and operated in a manner which minimizes fugitive dust emissions. Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average.

Visible particulate emissions from any fugitive dust emissions unit shall not exceed 20% opacity as a 3-minute average.

The particulate matter emissions limit based on this applicable rule is less stringent than the limit established pursuant to OAC rule 3745-31-05.

**B. Operational Restrictions**

1. None

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

1. None

**D. Reporting Requirements**

1. None

**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 as a 3-minute average

Applicable Compliance Method:

OAC rule 3745-17-03(B)(3)

Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

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

Emission Limitation:

2.0 lbs/hr of particulate matter

Applicable Compliance Method:

Compliance shall be determined by totalling the following products:

i. Mold sand preparation

Multiply the particulate emission factor of 1.3 pounds of particulate emissions per ton of castings produced by the maximum hourly production rate (Ohio EPA RACM, Table 2.7-1). The resulting emission rate is 0.39 lb/hr.

ii. Mold Making

Multiply the particulate emission factor of 0.04 pound of particulate emissions per ton of castings produced by the maximum hourly production rate (Ohio EPA RACM, Table 2.7-1). The resulting emission rate is 0.01 lb/hr.

iii. Sand Unloading

Multiply the particulate emission factor of 0.27 pound of particulate emissions per ton sand unloaded by the maximum hourly unloading rate (AP-42, 5th edition, Table 11.12-2). Multiply the uncontrolled emission rate by a fabric filter control factor of 99% (1-.99). The resulting emission rate is 0.1 lb/hr.

The resulting calculated emission rate is 0.5 lb/hr.

or

Use OAC rule 3745-17-03(B)(10).

Emission Limitation:

2.55 TPY of particulate matter

Applicable Compliance Method:

Compliance shall be determined by totalling the following products:

i. Mold sand preparation

Multiply 0.39 lb/hr by 8760 hours and divide by 2000. The resulting annual emission rate is 1.7 tons per year.

ii. Mold Making

Multiply 0.01 lb/hr by 8760 and divide by 2000. The resulting annual emission rate is 0.04 ton per year.

iii. Sand Unloading

The potential emissions for the sand unloading are limited by the capacity of the mixer (5475 tons of sand unloaded per year). Multiply the particulate emission factor of 0.27 pound of particulate emissions per ton of sand unloaded by the maximum capacity of 5475 tons of sand unloaded per year and multiply by a fabric filter control factor of 99% (1-.99). The resulting annual emission rate is 0.01 ton per year.

The tons per year emission rate is 1.75 tons per year.

**F. Miscellaneous Requirements**

1. None