

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](#)

[Go to Part II for Emissions Unit R001](#)

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Facility ID: 1652100075 Emissions Unit ID: F001 Issuance type: Final State Permit To Operate

[Go to the top of this document](#)

**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 pound of chlorine per hour
		0.3 pound of hydrogen chloride (HCl) per hour
		0.9 ton of particulate emissions (PE) per year
		Visible particulate emissions from any fugitive dust source shall not exceed 10% opacity as a 3-minute average.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.
	OAC rule 3745-17-07(B)	The emissions limit based on this applicable rule is less stringent than the limit established pursuant to OAC rule 3745-31-05.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures to minimize or eliminate visible emissions of fugitive dust.
	OAC rule 3745-17-11	The emissions limit based on this applicable rule is less stringent than the limit established pursuant to OAC rule 3745-31-05.

**2. Additional Terms and Conditions**

- (a) None

**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

Visible particulate emissions from any stack shall not exceed 20 percent opacity as a six-minute average, except as specified by rule.

Applicable Compliance Method

Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60 ("Standards of Performance for New Stationary Sources"), Appendix A, U.S. EPA Reference Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).  
Emission Limitation

Visible particulate emissions from any fugitive dust source shall not exceed 10% opacity as a 3-minute average.

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, and the applicable modifications listed in paragraphs (B)(3)(a) through (B)(3)(e) of OAC rule 3745-17-03.  
Emission Limitation

0.5 pound of chlorine per hour

Applicable Compliance Method:

If required, compliance with the hourly allowable chlorine emission limitation above shall be determined by using approved USEPA test methods and procedures.  
Emission Limitation:

0.3 pound of HCl per hour

Applicable Compliance Method:

If required, compliance with the hourly allowable HCl emission limitation above shall be determined by using the test method(s) and procedures in Methods 1-4 and 26 or 26A, as appropriate, of 40 CFR Part 60, Appendix A.  
Emission Limitation:

0.9 ton of PE per year

Applicable Compliance Method:

If required, compliance with the annual allowable PE limitation above shall be determined by using the test method(s) and procedures in Methods 1-5 of 40 CFR Part 60, Appendix A.

F. **Miscellaneous Requirements**

- 1. None

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Facility ID: 1652100075 Emissions Unit ID: P901 Issuance type: Final State Permit To Operate

[Go to the top of this document](#)

**Part II - Special Terms and Conditions**

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- 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 pounds of particulate emissions (PE) per hour 2.55 tons of PE per year The sand storage silo(s) shall be equipped with a fabric

OAC rule 3745-17-07(A)	filter to control particulate emissions from the pneumatic conveying of sand from carrier to silo(s). Visible particulate emissions from any stack shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.
OAC rule 3745-17-07(B)	Visible particulate emissions from fugitive dust shall not exceed twenty percent opacity as a three-minute average.
OAC rule 3745-17-08(B)	The equipment employed for mold sand preparation and makeup shall be of a design and operated in a manner which minimizes fugitive dust emissions.
OAC rule 3745-17-11	The emissions limit based on this applicable rule is less stringent than the limit established pursuant to OAC rule 3745-31-05.

2. **Additional Terms and Conditions**

(a) None

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

Visible emissions of fugitive dust shall not exceed 20 percent opacity as a three-minute average.

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, and the applicable modifications listed in paragraphs (B)(3)(a) through (B)(3)(e) of OAC rule 3745-17-03.

Emission Limitation

Visible particulate emissions from any stack shall not exceed 20 percent opacity as a six-minute average, except as specified by rule.

Applicable Compliance Method

Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60 ("Standards of Performance for New Stationary Sources"), Appendix A, U.S. EPA Reference Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

Emission Limitation:

2.0 pounds of PE per hour

Applicable Compliance Method:

Compliance with the hourly allowable PE limitation above shall be demonstrated 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.

If required, compliance with the hourly allowable PE limitations above shall be determined by using the test method(s) and procedures in Methods 1-5 of 40 CFR Part 60, Appendix A.

Emission Limitation:

2.55 tons of PE per year

Applicable Compliance Method:

Compliance with the annual allowable PE limitation above shall be demonstrated 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

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[Go to the top of this document](#)

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- 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>
Mold wash spray booth with fabric filter	OAC rule 3745-31-05 (PTI 16-1592)	47.2 pounds of organic compounds (OC) per day 21.2 pounds of methanol per day See sections B.1 and B.2
	OAC rule 3745-21-07(G)	None (See section A.2.a below.)

2. **Additional Terms and Conditions**

- (a) Pursuant to OAC rule 3745-21-07(G)(9)(c), this emissions unit is exempt from the requirements of OAC rule 3745-21-07(G).

B. **Operational Restrictions**

- 1. The daily coating usage for this emissions unit shall not exceed 7 gallons.
- 2. The daily operating hours for this emissions unit shall not exceed 2 hours.
- 3. The permittee shall not employ any photochemically reactive materials, as defined in OAC rule 3745-21-01(C)(5), in this emissions unit.

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

- 1. The permittee shall collect and record the following information for each day for the spray booth operation:
  - a. the company identification for each coating and cleanup material employed;
  - b. the number of gallons of each coating and cleanup material employed;

- c. the total number of gallons of all of the coatings and cleanup material employed;
- d. the organic compound content of each coating and cleanup material, in pounds per gallon;
- e. the methanol content of each coating and cleanup material, in pounds per gallon;
- f. the total number of hours the emissions unit was in operation;
- g. the total organic compound emission rate for all coatings and cleanup materials, in pounds per day; and
- h. the total methanol emission rate for all coatings and cleanup materials, in pounds per day.

[Note: The coating information must be for the coatings as employed, including any thinning solvents added at the emissions unit.]

**D. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports which include the following information:
  - a. an identification of each day during which the total methanol emissions exceeded 21.2 pounds per day, and the actual methanol emissions for each such day; and
  - b. an identification of each day during which the total organic compound emissions exceeded 47.2 pounds per day, and the actual organic compound emissions for each such day.

Such reports shall include a copy of the record(s) indicating the deviation and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 45 days after the deviation occurs.
2. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any daily record showing that the coating line employs more than the applicable maximum daily coating usage limit. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 45 days after the exceedance occurs.
3. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any daily record showing that the coating line operated more than the applicable maximum daily operational limit. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 45 days after the exceedance occurs.

**E. Testing Requirements**

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

Emission Limitation:

47.2 pounds of OC per day

Applicable Compliance Method:

Compliance with the daily OC emission limitation above shall be demonstrated through the record keeping requirements established in section C.1 of this permit. USEPA Method 24 shall be used to determine the OC content of each coating and cleanup material. If formulation data supplied by the manufacturer(s) for the coatings employed in this emission unit is determined to be representative or overestimates OC content for all coating samples, based on comparison to method 24 testing, then formulation data may be used in lieu of on-going method 24 analyses. In no case shall formulation data be used which reports lower OC content than method 24 analysis.

Emission Limitation:

21.2 pounds of methanol per day

Applicable Compliance Method:

Compliance with the daily methanol emission limitation above shall be demonstrated through the record keeping requirements established in section C.1 of this permit. USEPA Method 24 shall be used to determine the methanol content of each coating and cleanup material. If formulation data supplied by the manufacturer(s) for the coatings employed in this emission unit is determined to be representative or overestimates methanol content for all coating samples, based on comparison to method 24 testing, then formulation data may be used in lieu of on-going method 24 analyses. In no case shall formulation data be used which reports lower methanol content than method 24 analysis.

**F. Miscellaneous Requirements**

1. None