

Facility ID: 0857150313 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 P004](#)
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Facility ID: 0857150313 Emissions Unit ID: P004 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>
24" Hayes sintering belt furnace # 4	OAC rule 3745-31-05(A)(3) PTI #08-04301	0.72 lb/hr and 3.15 tons/yr particulate emissions The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A). The emission limitation specified by this rule is less stringent than the emission limitation pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-11(B)(1)	20% opacity visible emissions, as a six-minute average, except as provided by rule
	OAC rule 3745-17-07(A)	

2. **Additional Terms and Conditions**
 - (b) The hourly and annual particulate emissions limits were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limits.

B. Operational Restrictions

1. None

C. Monitoring and/or Record Keeping Requirements

1. None

D. Reporting Requirements

1. None

E. Testing Requirements

1. Compliance Method

Compliance with the emission limitations in Section A1. of these terms and conditions shall be determined in accordance with the following method(s):
Emission Limitation-
0.72 lb/hr particulate

Applicable Compliance Method-
Compliance shall be determined by multiplying the maximum furnace operating capacity (555 lbs/hr) by the

maximum weight % metallic lubricant in the powder metal mix (1%). The result, 5.55 lbs lubricant/hr is then multiplied by the particulate conversion factor for zinc stearate (0.129) as developed in the Powder Metal Initiative Report, July 30, 1999.

Emission Limitation-
3.15 tons/yr particulate

Applicable Compliance Method-

As long as compliance is maintained with the hourly emission limitation, compliance with the annual emission limitation will be shown (the annual emission limitation was calculated by multiplying the hourly limitation by the maximum annual operating schedule of 8,760 hrs and then dividing by 2000 lbs/ton.

Emission Limitation-
20% opacity visible emissions limit, as a six minute average

Applicable Compliance Method-

Compliance shall be determined by visible emission performed in accordance with OAC rule 3745-17-03(B)(3) using the methods and procedures specified in USEPA Reference Method 9.

F. Miscellaneous Requirements

- 1. None

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Facility ID: 0857150313 Emissions Unit ID: P010 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>
24" Abbott sintering belt furnace #3	OAC rule 3745-31-05(A)(3) PTI #08-04301	0.72 lb/hr and 3.15 tons/yr particulate emissions The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A). The emission limitation specified by this rule is less stringent than the emission limitation pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-11(B)(1)	20% opacity visible emissions, as a six-minute average, except as provided by rule
	OAC rule 3745-17-07(A)	

- 2. **Additional Terms and Conditions**
 - (b) The hourly and annual particulate emissions limits were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limits.

B. Operational Restrictions

- 1. None

C. Monitoring and/or Record Keeping Requirements

- 1. None

D. Reporting Requirements

- 1. None

E. Testing Requirements

1. Compliance Method

Compliance with the emission limitations in Section A1. of these terms and conditions shall be determined in accordance with the following method(s):

Emission Limitation-
0.72 lb/hr particulate

Applicable Compliance Method-

Compliance shall be determined by multiplying the maximum furnace operating capacity (555 lbs/hr) by the maximum weight % metallic lubricant in the powder metal mix (1%). The result, 5.55 lbs lubricant/hr is then multiplied by the particulate conversion factor for zinc stearate (0.129) as developed in the Powder Metal Initiative Report, July 30, 1999.

Emission Limitation-
3.15 tons/yr particulate

Applicable Compliance Method-

As long as compliance is maintained with the hourly emission limitation, compliance with the annual emission limitation will be shown (the annual emission limitation was calculated by multiplying the hourly limitation by the maximum annual operating schedule of 8,760 hrs and then dividing by 2000 lbs/ton).

Emission Limitation-
20% opacity visible emissions limit, as a six minute average

Applicable Compliance Method-

Compliance shall be determined by visible emission performed in accordance with OAC rule 3745-17-03(B)(3) using the methods and procedures specified in USEPA Reference Method 9.

F. **Miscellaneous Requirements**

- 1. None

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Facility ID: 0857150313 Emissions Unit ID: P011 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>
36" Abbott sintering belt furnace # 5	OAC rule 3745-31-05(A)(3) PTI #08-04301	0.60 lb/hr and 2.63 tons/yr particulate emissions The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A). The emission limitation specified by this rule is less stringent than the emission limitation pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-11(B)(1)	20% opacity visible emissions, as a six-minute average, except as provided by rule
	OAC rule 3745-17-07(A)	

- 2. **Additional Terms and Conditions**
 - (b) The hourly and annual particulate emissions limits were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limits.

B. **Operational Restrictions**

- 1. None
- C. **Monitoring and/or Record Keeping Requirements**

- 1. None
- D. **Reporting Requirements**

- 1. None
- E. **Testing Requirements**

- 1. Compliance Method

Compliance with the emission limitations in Section A1. of these terms and conditions shall be determined in accordance with the following method(s):

Emission Limitation-
0.60 lb/hr particulate

Applicable Compliance Method-

Compliance shall be determined by multiplying the maximum furnace operating capacity (617.4 lbs/hr) by the maximum weight % metallic lubricant in the powder metal mix (0.75%). The result, 4.63 lbs lubricant/hr is then multiplied by the particulate conversion factor for zinc stearate (0.129) as developed in the Powder Metal Initiative Report, July 30, 1999.

Emission Limitation-
2.63 tons/yr particulate

Applicable Compliance Method-

As long as compliance is maintained with the hourly emission limitation, compliance with the annual emission limitation will be shown (the annual emission limitation was calculated by multiplying the hourly limitation by the maximum annual operating schedule of 8,760 hrs and then dividing by 2000 lbs/ton.

Emission Limitation-
20% opacity visible emissions limit, as a six minute average

Applicable Compliance Method-

Compliance shall be determined by visible emission performed in accordance with OAC rule 3745-17-03(B)(3) using the methods and procedures specified in USEPA Reference Method 9.

- F. **Miscellaneous Requirements**

- 1. None

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Facility ID: 0857150313 Emissions Unit ID: P012 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>
36" Abbott sintering belt furnace # 6	OAC rule 3745-31-05(A)(3) PTI #08-04301	0.60 lb/hr and 2.63 tons/yr particulate emissions The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A). The emission limitation specified by this rule is less stringent than the emission limitation pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-11(B)(1)	20% opacity visible emissions, as a six-minute average, except as provided by rule

OAC rule 3745-17-07(A)

2. **Additional Terms and Conditions**

- (b) The hourly and annual particulate emissions limits were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limits.

B. **Operational Restrictions**

- 1. None

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

- 1. None

D. **Reporting Requirements**

- 1. None

E. **Testing Requirements**

- 1. Compliance Method

Compliance with the emission limitations in Section A1. of these terms and conditions shall be determined in accordance with the following method(s):

Emission Limitation-
0.60 lb/hr particulate

Applicable Compliance Method-

Compliance shall be determined by multiplying the maximum furnace operating capacity (617.4 lbs/hr) by the maximum weight % metallic lubricant in the powder metal mix (0.75%). The result, 4.63 lbs lubricant/hr is then multiplied by the particulate conversion factor for zinc stearate (0.129) as developed in the Powder Metal Initiative Report, July 30, 1999.

Emission Limitation-
2.63 tons/yr particulate

Applicable Compliance Method-

As long as compliance is maintained with the hourly emission limitation, compliance with the annual emission limitation will be shown (the annual emission limitation was calculated by multiplying the hourly limitation by the maximum annual operating schedule of 8,760 hrs and then dividing by 2000 lbs/ton.

Emission Limitation-

20% opacity visible emissions limit, as a six minute average

Applicable Compliance Method-

Compliance shall be determined by visible emission performed in accordance with OAC rule 3745-17-03(B)(3) using the methods and procedures specified in USEPA Reference Method 9.

F. **Miscellaneous Requirements**

- 1. None

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Facility ID: 0857150313 Emissions Unit ID: P013 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>
36" Pre-Sintering belt furnace # 7	OAC rule 3745-31-05(A)(3) PTI #08-04301	0.84 lb/hr and 3.68 tons/yr particulate emissions The requirements of this rule also include compliance

with the requirements of OAC rule 3745-17-07(A).

The emission limitation specified by this rule is less stringent than the emission limitation pursuant to OAC rule 3745-31-05(A)(3).

OAC rule 3745-17-11(B)(1)

20% opacity visible emissions, as a six-minute average, except as provided by rule

OAC rule 3745-17-07(A)

2. Additional Terms and Conditions

- (b) The hourly and annual particulate emissions limits were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limits.

B. Operational Restrictions

- 1. None

C. Monitoring and/or Record Keeping Requirements

- 1. None

D. Reporting Requirements

- 1. None

E. Testing Requirements

- 1. Compliance Method

Compliance with the emission limitations in Section A1. of these terms and conditions shall be determined in accordance with the following method(s):

Emission Limitation-
0.84 lb/hr particulate

Applicable Compliance Method-

Compliance shall be determined by multiplying the maximum furnace operating capacity (810 lbs/hr) by the maximum weight % metallic lubricant in the powder metal mix (0.8%). The result, 6.48 lbs lubricant/hr is then multiplied by the particulate conversion factor for zinc stearate (0.129) as developed in the Powder Metal Initiative Report, July 30, 1999.

Emission Limitation-
3.68 tons/yr particulate

Applicable Compliance Method-

As long as compliance is maintained with the hourly emission limitation, compliance with the annual emission limitation will be shown (the annual emission limitation was calculated by multiplying the hourly limitation by the maximum annual operating schedule of 8,760 hrs and then dividing by 2000 lbs/ton.

Emission Limitation-
20% opacity visible emissions limit, as a six minute average

Applicable Compliance Method-

Compliance shall be determined by visible emission performed in accordance with OAC rule 3745-17-03(B)(3) using the methods and procedures specified in USEPA Reference Method 9.

F. Miscellaneous Requirements

- 1. None

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Facility ID: 0857150313 Emissions Unit ID: P014 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>
36" Abbott sintering belt furnace # 8	OAC rule 3745-31-05(A)(3) PTI #08-04301	0.52 lb/hr and 2.28 tons/yr particulate emissions The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A). The emission limitation specified by this rule is less stringent than the emission limitation pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-11(B)(1)	20% opacity visible emissions, as a six-minute average, except as provided by rule
	OAC rule 3745-17-07(A)	

2. **Additional Terms and Conditions**

- (b) The hourly and annual particulate emissions limits were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limits.

B. **Operational Restrictions**

- 1. None

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

- 1. None

D. **Reporting Requirements**

- 1. None

E. **Testing Requirements**

- 1. Compliance Method

Compliance with the emission limitations in Section A1. of these terms and conditions shall be determined in accordance with the following method(s):
Emission Limitation-
0.52 lb/hr particulate

Applicable Compliance Method-
Compliance shall be determined by multiplying the maximum furnace operating capacity (500 lbs/hr) by the maximum weight % metallic lubricant in the powder metal mix (0.8%). The result, 4 lbs lubricant/hr is then multiplied by the particulate conversion factor for zinc stearate (0.129) as developed in the Powder Metal Initiative Report, July 30, 1999.
Emission Limitation-
2.28 tons/yr particulate

Applicable Compliance Method-
As long as compliance is maintained with the hourly emission limitation, compliance with the annual emission limitation will be shown (the annual emission limitation was calculated by multiplying the hourly limitation by the maximum annual operating schedule of 8,760 hrs and then dividing by 2000 lbs/ton.
Emission Limitation-
20% opacity visible emissions limit, as a six minute average

Applicable Compliance Method-
Compliance shall be determined by visible emission performed in accordance with OAC rule 3745-17-03(B)(3) using the methods and procedures specified in USEPA Reference Method 9.

F. **Miscellaneous Requirements**

- 1. None