

Facility ID: 0536000020 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 P030](#)
- [Go to Part II for Emissions Unit P031](#)
- [Go to Part II for Emissions Unit P032](#)
- [Go to Part II for Emissions Unit P033](#)
- [Go to Part II for Emissions Unit P034](#)
- [Go to Part II for Emissions Unit P035](#)
- [Go to Part II for Emissions Unit P036](#)

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Facility ID: 053600020 Emissions Unit ID: P030 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>
P030 - Candle filling line 1	OAC rule 3745-31-05	0.838 lb. of VOC/hr 20.11 lbs of VOC/day 3.67 tons of VOC/yr
	OAC rule 3745-21-07	0.438 ton of VOC/yr-from the marking inks The emissions limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. **Additional Terms and Conditions**
  - (a) Compliance with OAC rule 3745-31-05 (A) (3) shall be demonstrated by the use of good operating practices designed to minimize emissions.

**B. Operational Restrictions**

1. Fill station wax hoppers shall be equipped with lids and kept in a closed position unless internal access is required.

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

1. The permittee shall maintain records of the following information:
  - a.the maximum product fill rate of the process equipment.
  - b.calculations or the results of any tests conducted to demonstrate compliance with the hourly emission limitation and annual mass emission limitations specified in A.1.
2. The permittee shall collect and record the following information each year for the marking ink operation:
  - a.The company identification for each coating and cleanup material employed.
  - b.The number of gallons of the marking ink and cleanup material employed
  - c.The VOC content of the marking ink and cleanup materials as applied.
  - d.calculations or the results of any tests conducted to demonstrate compliance with the annual marking ink emission limitation specified in A.1.

**D. Reporting Requirements**

1. The permittee shall submit annual reports which specify the total actual and permit allowable organic compound

emissions from this emissions unit and from the marking ink emissions for the previous calendar year. This report shall be submitted by January 31 of each year.

**E. Testing Requirements**

1. Compliance with the emissions limitations specified in Section A.I.1. of these terms and conditions shall be determined in accordance with the following methods:

Emission Limitation:

0.838 lbs. of VOC/hr.

Applicable Compliance Method:

(MPWR) (EFc) = 0.838 lbs. of VOC/hr.

where

MPWR= the maximum process weight rate (1,731 lbs. of product/hr)

EFc= the emission factor, developed by company-sponsored research is the following:

$((-0.0003055*(C*100)^2)+(0.0439*(C*100))+0.0011)/1000 = 4.839 \text{ E-}04 \text{ lb. of VOC/lb. of product}$

Where:

C is the fragrance concentration, lb fragrance per lb scented candle wax

EFc = Emission factor at C = lb VOC/lb scented wax used

Emissions lb/hr = Candle wax fill rate lb/hr x EFc

Emission Limitation:

3.67 tons of VOC/yr

Applicable Compliance Method:

(MAER) (MAH) (CONV) = 3.67 tons of VOC/yr

where

MAER= the maximum allowable emission rate (0.838 lbs. of VOC/hr.)

MAH= the maximum annual hours of operation (8,760 hrs./yr.)

CONV= conversion factor (1 ton/2000 lbs.)

Emission Limitation:

20.11 lbs of VOC/day

Applicable Compliance Method:

(MAER) (MAH)= 20.11 lbs of VOC/day

where

MAER= the maximum allowable emission rate (0.838 lbs. of VOC/hr.)

MAH= the maximum daily hours of operation (24 hrs./day)

Emission Limitation:

0.438 tons of VOC/yr from the marking ink

Applicable Compliance Method:

(EF) (MAH) (CONV) = 0.438 tons of VOC/yr from the marking ink

where

EF= the emission factor, based on company-sponsored research (0.1 lbs of VOC/hr)

MAH= the maximum annual hours of operation (8,760 hrs./yr)

CONV= conversion factor (1 ton/2000 lbs)

**F. Miscellaneous Requirements**

1. None

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**Facility ID: 0536000020 Emissions Unit ID: P031 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>
P031 - Candle filling line 7	OAC rule 3745-31-05	0.842 lb. of VOC/hr 20.2 lbs of VOC/day 3.69 tons of VOC/yr
	OAC rule 3745-21-07	0.438 ton of VOC/yr-from the marking inks The emissions limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

**2. Additional Terms and Conditions**

- (a) Compliance with OAC rule 3745-31-05 (A) (3) shall be demonstrated by the use of good operating practices designed to minimize emissions.

**B. Operational Restrictions**

- 1. Fill station wax hoppers shall be equipped with lids and kept in a closed position unless internal access is required.

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

- 1. The permittee shall maintain records of the following information:
  - a.the maximum product fill rate of the process equipment.
  - b.calculations or the results of any tests conducted to demonstrate compliance with the hourly emission limitation and annual mass emission limitations specified in A.1.
- 2. The permittee shall collect and record the following information each year for the marking ink operation:
  - a.The company identification for each coating and cleanup material employed.
  - b.The number of gallons of the marking ink and cleanup material employed
  - c.The VOC content of the marking ink and cleanup materials as applied.
  - d.calculations or the results of any tests conducted to demonstrate compliance with the annual marking ink emission limitation specified in A.1.

**D. Reporting Requirements**

- 1. The permittee shall submit annual reports which specify the total actual and permit allowable organic compound emissions from this emissions unit and from the marking ink emissions for the previous calendar year. This report shall be submitted by January 31 of each year.

**E. Testing Requirements**

- 1. Compliance with the emissions limitations specified in Section A.I.1. of these terms and conditions shall be determined in accordance with the following methods:  
Emission Limitation:

0.842 lbs. of VOC/hr.

Applicable Compliance Method:

(MPWR) (EFc)= 0.842 lbs. of VOC/hr.

where

MPWR= the maximum process weight rate (2,564 lbs. of product/hr)

EFc= the emission factor, developed by company-sponsored research is the following:

$((-0.000207*(C*100)^2)+(0.0298*(C*100))+0.0007)/1000 = 3.285 \text{ E-}04 \text{ lb. of VOC/lb. of product}$

Where:

C is the fragrance concentration, lb fragrance per lb scented candle wax

EFc = Emission factor at C = lb VOC/lb scented wax used

Emissions lb/hr = Candle wax fill rate lb/hr x EFc

Emission Limitation:

3.69 tons of VOC/yr

Applicable Compliance Method:

(MAER) (MAH) (CONV) = 3.69 tons of VOC/yr

where

MAER= the maximum allowable emission rate (0.842 lbs. of VOC/hr.)

MAH= the maximum annual hours of operation (8,760 hrs./yr.)

CONV= conversion factor (1 ton/2000 lbs.)

Emission Limitation:

20.21 lbs of VOC/day

Applicable Compliance Method:

(MAER) (MAH)= 20.21 lbs of VOC/day

where

MAER= the maximum allowable emission rate (0.842 lbs. of VOC/hr.)

MAH= the maximum daily hours of operation (24 hrs./day)

Emission Limitation:

0.438 tons of VOC/yr from the marking ink

Applicable Compliance Method:

(EF) (MAH) (CONV) = 0.438 tons of VOC/yr from the marking ink

where

EF= the emission factor, based on company-sponsored research (0.1 lbs of VOC/hr)

MAH= the maximum annual hours of operation (8,760 hrs./yr.)

CONV= conversion factor (1 ton/2000 lbs)

**F. Miscellaneous Requirements**

1. None

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Facility ID: 0536000020 Emissions Unit ID: P032 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>
P032 - Candle filling line 6	OAC rule 3745-31-05	0.808 lb. of VOC/hr 19.39 lbs of VOC/day 3.54 tons of VOC/yr
	OAC rule 3745-21-07	0.438 ton of VOC/yr-from the marking inks The emissions limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. **Additional Terms and Conditions**

- (a) Compliance with OAC rule 3745-31-05 (A) (3) shall be demonstrated by the use of good operating practices designed to minimize emissions.

**B. Operational Restrictions**

1. Fill station wax hoppers shall be equipped with lids and kept in a closed position unless internal access is required.

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

1. The permittee shall maintain records of the following information:
- a. the maximum product fill rate of the process equipment.
  - b. calculations or the results of any tests conducted to demonstrate compliance with the hourly emission limitation and annual mass emission limitations specified in A.1.
2. The permittee shall collect and record the following information each year for the marking ink operation:
- a. The company identification for each coating and cleanup material employed.
  - b. The number of gallons of the marking ink and cleanup material employed
  - c. The VOC content of the marking ink and cleanup materials as applied.
  - d. calculations or the results of any tests conducted to demonstrate compliance with the annual marking ink emission limitation specified in A.1.

**D. Reporting Requirements**

1. The permittee shall submit annual reports which specify the total actual and permit allowable organic compound emissions from this emissions unit and from the marking ink emissions for the previous calendar year. This report shall be submitted by January 31 of each year.

**E. Testing Requirements**

1. Compliance with the emissions limitations specified in Section A.1.1. of these terms and conditions shall be determined in accordance with the following methods:

Emission Limitation:

0.808 lbs. of VOC/hr.

Applicable Compliance Method:

(MPWR) (EFc) = 0.808 lbs. of VOC/hr.

where

MPWR = the maximum process weight rate (2,485 lbs. of product/hr)

EFc = the emission factor, developed by company-sponsored research is the following:

$((-0.000204 \cdot (C \cdot 100)^2) + (0.0295 \cdot (C \cdot 100)) + 0.0007) / 1000 = 3.253 \text{ E-04 lb. of VOC/lb. of product}$

Where:

C is the fragrance concentration, lb fragrance per lb scented candle wax

EFc = Emission factor at C = lb VOC/lb scented wax used

Emissions lb/hr = Candle wax fill rate lb/hr x EFc

Emission Limitation:

3.54 tons of VOC/yr

Applicable Compliance Method:

(MAER) (MAH) (CONV) = 3.54 tons of VOC/yr

where

MAER = the maximum allowable emission rate (0.808 lbs. of VOC/hr.)

MAH = the maximum annual hours of operation (8,760 hrs./yr.)

CONV = conversion factor (1 ton/2000 lbs.)

Emission Limitation:

3.54 tons of VOC/yr.

Applicable Compliance Method:

(MAER) (MAH) = 3.54 tons of VOC/yr.

where

MAER = the maximum allowable emission rate (0.838 lbs. of VOC/hr.)

MAH = the maximum daily hours of operation (24 hrs./day)

Emission Limitation:

0.438 tons of VOC/yr from the marking ink

Applicable Compliance Method:

(EF) (MAH) (CONV) = 0.438 tons of VOC/yr from the marking ink

where

EF= the emission factor, based on company-sponsored research (0.1 lbs of VOC/hr)

MAH= the maximum annual hours of operation (8,760 hrs./yr)

CONV= conversion factor (1 ton/2000 lbs)

**F. Miscellaneous Requirements**

- 1. None

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Facility ID: 053600020 Emissions Unit ID: P033 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>
P033 - Candle filling line 8	OAC rule 3745-31-05	0.962838 lb. of VOC/hr 23.09 lbs of VOC/day 4.21 tons of VOC/yr
	OAC rule 3745-21-07	0.438 ton of VOC/yr-from the marking inks The emissions limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

**2. Additional Terms and Conditions**

- (a) Compliance with OAC rule 3745-31-05 (A) (3) shall be demonstrated by the use of good operating practices designed to minimize emissions.

**B. Operational Restrictions**

- 1. Fill station wax hoppers shall be equipped with lids and kept in a closed position unless internal access is required.

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

- 1. The permittee shall maintain records of the following information:
  - a.the maximum product fill rate of the process equipment.
  - b.calculations or the results of any tests conducted to demonstrate compliance with the hourly emission limitation and annual mass emission limitations specified in A.1.
- 2. The permittee shall collect and record the following information each year for the marking ink operation:
  - a.The company identification for each coating and cleanup material employed.
  - b.The number of gallons of the marking ink and cleanup material employed
  - c.The VOC content of the marking ink and cleanup materials as applied.
  - d.calculations or the results of any tests conducted to demonstrate compliance with the annual marking ink emission limitation specified in A.1.

**D. Reporting Requirements**

1. The permittee shall submit annual reports which specify the total actual and permit allowable organic compound emissions from this emissions unit and from the marking ink emissions for the previous calendar year. This report shall be submitted by January 31 of each year.

**E. Testing Requirements**

1. Compliance with the emissions limitations specified in Section A.I.1. of these terms and conditions shall be determined in accordance with the following methods:  
Emission Limitation:

0.962 lb of VOC/hr.

Applicable Compliance Method:

Station 1 MPWR) (Station 1 EFc)  
+ (Station 2 MPWR) (Station 2 EFc)  
+ (Station 3 MPWR) (Station 3 EFc)  
= 0.962 lb of VOC/hr.

where

Station MPWR = the maximum process weight rate per fill station =

Station 1: 873 lb scented wax/hr  
Station 2: 873 lb scented wax/hr  
Station 3: 1508 lb scented wax/hr

EFc= the emission factor, developed by company-sponsored research for each station is the following:

Station 1 EFc =

$0.6253 * [(-0.000207 * (C * 100)^2) + (0.0298 * (C * 100)) + 0.0007] / 1000 = 2.057 \text{ E-4}$   
Station 2 EFc =  $(-0.000207 * (C * 100)^2) + (0.0298 * (C * 100)) + 0.0007 / 1000 = 3.285 \text{ E-4}$   
Station 3 EFc =  $(-0.000207 * (C * 100)^2) + (0.0298 * (C * 100)) + 0.0007 / 1000 = 3.285 \text{ E-4}$

Where:

C is the fragrance concentration, lb fragrance per lb scented candle wax  
EFc = Emission factor at C = lb VOC/lb scented wax used at the fill station  
Emissions lb/hr = Candle wax fill rate lb/hr at fill station x EFc for fill station  
Emission Limitation:

4.21 tons of VOC/yr.

Applicable Compliance Method:

(MAER) (MAH) (CONV) = 4.21 tons of VOC/yr

where

MAER= the maximum allowable emission rate (0.962 lbs. of VOC/hr.)  
MAH= the maximum annual hours of operation (8,760 hrs./yr.)  
CONV= conversion factor (1 ton/2000 lbs.)  
Emission Limitation:

23.09 lbs of VOC/day

Applicable Compliance Method:

(MAER) (MAH)= 23.09 lbs of VOC/day

where

MAER= the maximum allowable emission rate (23.09 lbs. of VOC/hr.)  
MAH= the maximum daily hours of operation (24 hrs./day)  
Emission Limitation:

0.438 tons of VOC/yr from the marking ink

Applicable Compliance Method:

(EF) (MAH) (CONV) = 0.438 tons of VOC/yr from the marking ink

where

EF= the emission factor, based on company-sponsored research (0.1 lbs of VOC/hr)  
MAH= the maximum annual hours of operation (8,760 hrs./yr)  
CONV= conversion factor (1 ton/2000 lbs)

**F. Miscellaneous Requirements**

1. None

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Facility ID: 0536000020 Emissions Unit ID: P034 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>
P034 - Candle filling line 4	OAC rule 3745-31-05	1.233 lb. of VOC/hr 29.59 lbs of VOC/day 5.40 tons of VOC/yr
	OAC rule 3745-21-07	0.438 ton of VOC/yr-from the marking inks The emissions limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. **Additional Terms and Conditions**
  - (a) Compliance with OAC rule 3745-31-05 (A) (3) shall be demonstrated by the use of good operating practices designed to minimize emissions.

**B. Operational Restrictions**

1. Fill station wax hoppers shall be equipped with lids and kept in a closed position unless internal access is required.

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

1. The permittee shall maintain records of the following information:
  - a.the maximum product fill rate of the process equipment.
  - b.calculations or the results of any tests conducted to demonstrate compliance with the hourly emission limitation and annual mass emission limitations specified in A.1.
2. The permittee shall collect and record the following information each year for the marking ink operation:
  - a.The company identification for each coating and cleanup material employed.
  - b.The number of gallons of the marking ink and cleanup material employed
  - c.The VOC content of the marking ink and cleanup materials as applied.
  - d.calculations or the results of any tests conducted to demonstrate compliance with the annual marking ink emission limitation specified in A.1.

**D. Reporting Requirements**

1. The permittee shall submit annual reports which specify the total actual and permit allowable organic compound emissions from this emissions unit and from the marking ink emissions for the previous calendar year. This report shall be submitted by January 31 of each year.

**E. Testing Requirements**

1. Compliance with the emissions limitations specified in Section A.1.1. of these terms and conditions shall be determined in accordance with the following methods:  
Emission Limitation:  
1.233 lbs. of VOC/hr.  
Applicable Compliance Method:  
(MPWR) (EFc)= 1.233 lbs. of VOC/hr.  
where

MPWR= the maximum process weight rate (2,308 lbs. of product/hr)

EFc= the emission factor, developed by company-sponsored research is the following:

$((-0.000339*(C*100)^2)+(0.0485*(C*100))+0.0012)/1000 = 5.344 \text{ E-04 lb. of VOC/lb. of product}$

Where:

C is the fragrance concentration, lb fragrance per lb scented candle wax

EFc = Emission factor at C = lb VOC/lb scented wax used

Emissions lb/hr = Candle wax fill rate lb/hr x EFc

Emission Limitation:

5.40 tons of VOC/yr

Applicable Compliance Method:

(MAER) (MAH) (CONV) = 5.40 tons of VOC/yr

where

MAER= the maximum allowable emission rate (1.233 lbs. of VOC/hr.)

MAH= the maximum annual hours of operation (8,760 hrs./yr.)

CONV= conversion factor (1 ton/2000 lbs.)

Emission Limitation:

29.59 lbs of VOC/day

Applicable Compliance Method:

(MAER) (MAH)= 29.59 lbs of VOC/day

where

MAER= the maximum allowable emission rate (1.233 lbs. of VOC/hr.)

MAH= the maximum daily hours of operation (24 hrs./day)

Emission Limitation:

0.438 tons of VOC/yr from the marking ink

Applicable Compliance Method:

(EF) (MAH) (CONV) = 0.438 tons of VOC/yr from the marking ink

where

EF= the emission factor, based on company-sponsored research (0.1 lbs of VOC/hr)

MAH= the maximum annual hours of operation (8,760 hrs./yr)

CONV= conversion factor (1 ton/2000 lbs)

**F. Miscellaneous Requirements**

1. None

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Facility ID: 0536000020 Emissions Unit ID: P035 Issuance type: Final State Permit To Operate

[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>
P035 - Candle filling line 5	OAC rule 3745-31-05	1.211lb. of VOC/hr 29.06 lbs of VOC/day 5.30 tons of VOC/yr
	OAC rule 3745-21-07	0.438 ton of VOC/yr-from the marking inks The emissions limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
<b>2. Additional Terms and Conditions</b>		
(a) Compliance with OAC rule 3745-31-05 (A) (3) shall be demonstrated by the use of good operating practices designed to minimize emissions.		
<b>B. Operational Restrictions</b>		
1. Fill station wax hoppers shall be equipped with lids and kept in a closed position unless internal access is required.		
<b>C. Monitoring and/or Record Keeping Requirements</b>		
1. The permittee shall maintain records of the following information:		
a.the maximum product fill rate of the process equipment.		
b.calculations or the results of any tests conducted to demonstrate compliance with the hourly emission limitation and annual mass emission limitations specified in A.1.		
2. The permittee shall collect and record the following information each year for the marking ink operation:		
a.The company identification for each coating and cleanup material employed.		
b.The number of gallons of the marking ink and cleanup material employed		
c.The VOC content of the marking ink and cleanup materials as applied.		
d.calculations or the results of any tests conducted to demonstrate compliance with the annual marking ink emission limitation specified in A.1.		
<b>D. Reporting Requirements</b>		
1. The permittee shall submit annual reports which specify the total actual and permit allowable organic compound emissions from this emissions unit and from the marking ink emissions for the previous calendar year. This report shall be submitted by January 31 of each year.		
<b>E. Testing Requirements</b>		
1. Compliance with the emissions limitations specified in Section A.I.1. of these terms and conditions shall be determined in accordance with the following methods:		
Emission Limitation:		
1.211 lbs. of VOC/hr.		
Applicable Compliance Method:		
(MPWR) (EFc)= 1.211 lbs. of VOC/hr.		
where		
MPWR= the maximum process weight rate (2,308 lbs. of product/hr)		
EFc= the emission factor, developed by company-sponsored research is the following:		
$((-0.000331*(C*100)^2)+(0.0476*(C*100))+0.0012)/1000 = 5.247 \text{ E-}04 \text{ lb. of VOC/lb. of product}$		
Where:		
C is the fragrance concentration, lb fragrance per lb scented candle wax		
EFc = Emission factor at C = lb VOC/lb scented wax used		
Emissions lb/hr = Candle wax fill rate lb/hr x EFc		
Emission Limitation:		
5.30 tons of VOC/yr		
Applicable Compliance Method:		
(MAER) (MAH) (CONV) = 5.30 tons of VOC/yr		
where		
MAER= the maximum allowable emission rate (1.211 lbs. of VOC/hr.)		
MAH= the maximum annual hours of operation (8,760 hrs./yr.)		
CONV= conversion factor (1 ton/2000 lbs.)		
Emission Limitation:		
29.06 lbs of VOC/day		

Applicable Compliance Method:

(MAER) (MAH)= 29.06 lbs of VOC/day

where

MAER= the maximum allowable emission rate (1.211 lbs. of VOC/hr.)  
 MAH= the maximum daily hours of operation (24 hrs./day)  
 Emission Limitation:

0.438 tons of VOC/yr from the marking ink

Applicable Compliance Method:

(EF) (MAH) (CONV) = 0.438 tons of VOC/yr from the marking ink

where

EF= the emission factor, based on company-sponsored research (0.1 lbs of VOC/hr)  
 MAH= the maximum annual hours of operation (8,760 hrs./yr)  
 CONV= conversion factor (1 ton/2000 lbs)

**F. Miscellaneous Requirements**

1. None

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION\*\*\*

Facility ID: 0536000020 Emissions Unit ID: P036 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>
P036 - Candle filling line 5a	OAC rule 3745-31-05	0.558 lb. of VOC/hr 13.39 lbs of VOC/day 2.44 tons of VOC/yr
	OAC rule 3745-21-07	0.438 ton of VOC/yr-from the marking inks The emissions limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. **Additional Terms and Conditions**
  - (a) Compliance with OAC rule 3745-31-05 (A) (3) shall be demonstrated by the use of good operating practices designed to minimize emissions.

**B. Operational Restrictions**

1. Fill station wax hoppers shall be equipped with lids and kept in a closed position unless internal access is required.

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

1. The permittee shall maintain records of the following information:
  - a.the maximum product fill rate of the process equipment.
  - b.calculations or the results of any tests conducted to demonstrate compliance with the hourly emission

limitation and annual mass emission limitations specified in A.1.

2. The permittee shall collect and record the following information each year for the marking ink operation:

- a. The company identification for each coating and cleanup material employed.
- b. The number of gallons of the marking ink and cleanup material employed
- c. The VOC content of the marking ink and cleanup materials as applied.
- d. Calculations or the results of any tests conducted to demonstrate compliance with the annual marking ink emission limitation specified in A.1.

**D. Reporting Requirements**

1. The permittee shall submit annual reports which specify the total actual and permit allowable organic compound emissions from this emissions unit and from the marking ink emissions for the previous calendar year. This report shall be submitted by January 31 of each year.

**E. Testing Requirements**

1. Compliance with the emissions limitations specified in Section A.I.1. of these terms and conditions shall be determined in accordance with the following methods:

Emission Limitation:

0.588 lbs. of VOC/hr.

Applicable Compliance Method:

(MPWR) (EFc) = 0.588 lbs. of VOC/hr.

where

MPWR = the maximum process weight rate (1,154 lbs. of product/hr)

EFc = the emission factor, developed by company-sponsored research is the following:

$((-0.0003055 \cdot (C \cdot 100)^2) + (0.0439 \cdot (C \cdot 100)) + 0.0011) / 1000 = 4.839 \text{ E-04 lb. of VOC/lb. of product}$

Where:

C is the fragrance concentration, lb fragrance per lb scented candle wax

EFc = Emission factor at C = lb VOC/lb scented wax used

Emissions lb/hr = Candle wax fill rate lb/hr x EFc

Emission Limitation:

13.39 lbs of VOC/day

Applicable Compliance Method:

(MAER) (MAH) = 13.39 lbs of VOC/day

where

MAER = the maximum allowable emission rate (0.558 lbs. of VOC/hr.)

MAH = the maximum daily hours of operation (24 hrs./day)

Emission Limitation:

2.44 tons of VOC/yr

Applicable Compliance Method:

(MAER) (MAH) (CONV) = 2.44 tons of VOC/yr

where

MAER = the maximum allowable emission rate (0.558 lb of VOC/hr.)

MAH = the maximum annual hours of operation (8,760 hrs./yr.)

CONV = conversion factor (1 ton/2000 lbs.)

Emission Limitation:

0.438 tons of VOC/yr from the marking ink

Applicable Compliance Method:

(EF) (MAH) (CONV) = 0.438 tons of VOC/yr from the marking ink

where

EF = the emission factor, based on company-sponsored research (0.1 lbs of VOC/hr)

MAH = the maximum annual hours of operation (8,760 hrs./yr)

CONV = conversion factor (1 ton/2000 lbs)

**F. Miscellaneous Requirements**

1. None