

Facility ID: 0125040319 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.

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

Facility ID: 0125040319 Emissions Unit ID: P015 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>
Aseptic filling line w/wet scrubber (CAM 1)	OAC rule 3745-31-05(A)(3) (PTI 01-08555)	Hydrogen peroxide (H2O2) emissions shall not exceed 0.22 lb/hr and 0.96 ton/yr.

See section A.2.a below.

2. Additional Terms and Conditions

- (a) Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the use of a wet scrubber and compliance with the parametric monitoring described in section B.1-3. The aseptic filling line shall employ an electrical lock-out system to ensure maximum capture and control of hydrogen peroxide emissions during production. A malfunction of either the scrubber blower fan or recirculating liquid pump shall cause an electrical lockout to prevent production.

B. Operational Restrictions

1. The pressure drop across the packed-bed scrubber shall be maintained within an acceptable range of no less than 0.2 and no greater than 1.4 inch of water, while the emissions unit is in operation.
2. The liquid level in the recycle tank of the wet scrubber shall be maintained at depth of no less than 4 inches, while the emissions unit is in operation.
3. In the event of a pressure drop alarm, the permittee shall evaluate the solids concentration in the recycle tank to ensure that solids are not depositing within the recycle tank or on the bed packing. The permittee shall clean or replace the bed packing annually.

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the packed bed scrubber, while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals. The permittee shall record the following in an operations log on daily basis:
 - a. The pressure drop across the packed-bed scrubber for each day when the emission unit was in operation;
 - b. A log or record of the downtime for the control device and monitoring equipment, when the emissions unit was in operation;
 - c. The liquid level, in inches within the scrubber water reservoir tank; and
 - d. In the event of a pressure drop alarm, the permittee shall record a probable cause and any actions taken to return the packed-bed scrubber to an acceptable operating range.
2. The permit to install for these emissions units in this permit was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the

modeling for the "worst case" pollutant(s):

Pollutants: hydrogen peroxide
 TLV (ug/m3): 1,389
 Maximum Hourly Emission Rate (lbs/hr): 0.22 lb/hr
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 29
 MAGLC (ug/m3): 33

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. Changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "A"
3. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

- a. A description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
 - b. Documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
 - c. Where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.
- D. **Reporting Requirements**

1. In accordance with the General Terms and Conditions of this permit, the permittee shall submit quarterly deviation (excursion) reports that identify any periods of time during which the pressure drop across the packed-bed scrubber did not comply with the allowable range specified above and, if the pressure drop alarm sounds, a probable cause and any actions taken to return the packed-bed scrubber to an acceptable operating range.

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:

a. Emissions Limitation:
 Hydrogen peroxide emissions shall not exceed 0.22 lb/hr.

Applicable Compliance Method:
 The permittee shall demonstrate compliance with the hourly allowable emissions limitation through calculation using the ideal gas law: $n(\text{moles}) = PV/RT$; where: $P = 1 \text{ atm}$; $V = 3200 \text{ ft}^3/\text{min}$; $R = 0.02518 \text{ atm-ft}^3/\text{lb-R}$; $T = 539 \text{ R (80 F)}$ and $n = 8.12 \text{ moles air/min} * 29 \text{ lbs/mol} = 235.5 \text{ lbs/min} = 106.8 \text{ kg air/min} * 1,000,000 \text{ mg/1 kg} * 1 \text{ part}/1,000,000 \text{ parts}$, therefore $1 \text{ ppm H}_2\text{O}_2 = 106.8 \text{ mg air/min}/453,600 \text{ mg/lb} = 0.00024 \text{ lb/min}$ and $14.8 \text{ ppm H}_2\text{O}_2 \text{ highest hourly reading} * 0.00024 \text{ lb/min} = 0.0036 \text{ lb/min} * 60 \text{ min/hr} = 0.22 \text{ lb/hr}$.

b. Emissions Limitation:
 Hydrogen peroxide emissions shall not exceed 0.96 ton/yr.

Applicable Compliance Method:
 Compliance with the annual limitation shall be assumed as long as compliance with the hourly limitation is maintained (the annual limitation was calculated by multiplying the hourly emission rate by 8760 hours per year and dividing by 2000 pounds per ton).

F. **Miscellaneous Requirements**

1. None

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Facility ID: 0125040319 Emissions Unit ID: P016 Issuance type: Final State Permit To Operate

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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>
Aseptic filling line w/wet scrubber (CAM 2)	OAC rule 3745-31-05(A)(3) (PTI 01-08555)	Hydrogen peroxide (H2O2) emissions shall not exceed 0.22 lb/hr and 0.96 ton/yr.

See section A.2.a below.

2. Additional Terms and Conditions

- (a) Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the use of a wet scrubber and compliance with the parametric monitoring described in section B.1-3.
The aseptic filling line shall employ an electrical lock-out system to ensure maximum capture and control of hydrogen peroxide emissions during production. A malfunction of either the scrubber blower fan or recirculating liquid pump shall cause an electrical lockout to prevent production.

B. Operational Restrictions

- 1. The pressure drop across the packed-bed scrubber shall be maintained within an acceptable range of no less than 0.2 and no greater than 1.4 inch of water, while the emissions unit is in operation.
- 2. The liquid level in the recycle tank of the wet scrubber shall be maintained at depth of no less than 4 inches, while the emissions unit is in operation.
- 3. In the event of a pressure drop alarm, the permittee shall evaluate the solids concentration in the recycle tank to ensure that solids are not depositing within the recycle tank or on the bed packing. The permittee shall clean or replace the bed packing annually.

C. Monitoring and/or Record Keeping Requirements

- 1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the packed bed scrubber, while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals. The permittee shall record the following in an operations log on daily basis:

- a. The pressure drop across the packed-bed scrubber for each day when the emission unit was in operation;
- b. A log or record of the downtime for the control device and monitoring equipment, when the emissions unit was in operation;
- c. The liquid level, in inches within the scrubber water reservoir tank; and
- d. In the event of a pressure drop alarm, the permittee shall record a probable cause and any actions taken to return the packed-bed scrubber to an acceptable operating range.

- 2. The permit to install for these emissions units in this permit was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

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Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. Changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "A
- 3. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other

provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

- a. A description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. Documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. Where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

D. Reporting Requirements

1. In accordance with the General Terms and Conditions of this permit, the permittee shall submit quarterly deviation (excursion) reports that identify any periods of time during which the pressure drop across the packed-bed scrubber did not comply with the allowable range specified above and, if the pressure drop alarm sounds, a probable cause and any actions taken to return the packed-bed scrubber to an acceptable operating range.

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:

a. Emissions Limitation:

Hydrogen peroxide emissions shall not exceed 0.22 lb/hr.

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly allowable emissions limitation through calculation using the ideal gas law: $n(\text{moles}) = PV/RT$; where: $P = 1 \text{ atm}$; $V = 3200 \text{ ft}^3/\text{min}$; $R = 0.02518 \text{ atm-ft}^3/\text{lb-R}$; $T = 539 \text{ R (80 F)}$ and $n = 8.12 \text{ moles air/min} * 29 \text{ lbs/mol} = 235.5 \text{ lbs/min} = 106.8 \text{ kg air/min} * 1,000,000 \text{ mg/1 kg} * 1 \text{ part/1,000,000 parts}$, therefore $1 \text{ ppm H}_2\text{O}_2 = 106.8 \text{ mg air/min}/453,600 \text{ mg/lb} = 0.00024 \text{ lb/min}$ and $14.8 \text{ ppm H}_2\text{O}_2 \text{ highest hourly reading} * 0.00024 \text{ lb/min} = 0.0036 \text{ lb/min} * 60 \text{ min/hr} = 0.22 \text{ lb/hr}$.

b. Emissions Limitation:

Hydrogen peroxide emissions shall not exceed 0.96 ton/yr.

Applicable Compliance Method:

Compliance with the annual limitation shall be assumed as long as compliance with the hourly limitation is maintained (the annual limitation was calculated by multiplying the hourly emission rate by 8760 hours per year and dividing by 2000 pounds per ton).

F. Miscellaneous Requirements

1. None