

Facility ID: 1431380503 Issuance type: Final State Permit To Operate

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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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[Go to Part II for Emissions Unit P048](#)

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

Facility ID: 1431380503 Emissions Unit ID: P003 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>
P003-48-inch tablet coating pan (TT-23) using aqueous and solvent coatings with cartridge filter and thermal oxidizer	OAC rule 3745-31-05(A)(3) (PTI 14-05727)	<p>Organic Compound (OC) emissions from the process shall not exceed 1.94 pounds per hour.</p> <p>OC* emissions from the process shall not exceed 11.0 tons per year (TPY), as a rolling 12-month summation, for emissions units P003 and P048 combined.</p> <p>*for purposes of non-attainment review for ozone, all volatile organic compound (VOC) emissions are considered to be OC.</p> <p>Particulate emissions (PE) from the process shall not exceed 0.53 pound per hour and 2.33 TPY.</p> <p>Particulate matter emissions 10 microns and less in diameter (PM10) and particulate matter emissions 2.5 microns and less in diameter (PM2.5) from the process shall not exceed 0.53 pound per hour and 2.33 TPY.</p> <p>Emissions from the combustion of natural gas in the regenerative thermal oxidizer shall not exceed the following:</p> <p>Particulate emissions (PE) shall not exceed 0.01 pound per hour and 0.05 TPY.</p> <p>Particulate matter emissions 10 microns and less in diameter (PM10) shall not exceed 0.01 pound per hour and 0.05 TPY.</p> <p>Particulate matter emissions 2.5 microns and less in diameter (PM2.5) shall not exceed 0.01 pound per hour and 0.05 TPY.</p> <p>Sulfur Dioxide (SO2) emissions shall not exceed 0.001 pound per hour and 0.004 TPY.</p> <p>Nitrogen Oxides (NOx) emissions shall not exceed 0.16 pound per hour and 0.70 TPY.</p> <p>Carbon Monoxide (CO) emissions shall not exceed 0.13 pound per hour and 0.59 TPY.</p> <p>Organic Compound (OC) emissions shall not exceed</p>

0.02 pound per hour and 0.08 TPY.

(These emissions are from the one thermal oxidizer which controls emissions units P003, P048, P049, and P050.)

The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-08(B), OAC rule 3745-23-06(B) and OAC rule 3745-31-05 (C).

Visible particulate emissions from any stack shall not exceed 10 percent opacity, as a six-minute average.

See terms B.1 and B.3.

OAC rule 3745-17-07(A)(1) The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

OAC rule 3745-17-11(B) The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

OAC rule 3745-21-07(G) The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

OAC rule 3745-31-05(C) See terms A.2.b, A.2.c and B.2.

OAC rule 3745-21-08(B) See term A.2.d.

OAC rule 3745-23-06(B) See term A.2.e.

2. Additional Terms and Conditions

- (a) Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by emissions limitations, the use of a particulate filter with a particulate emissions control efficiency of at least 95 percent and the use of a thermal oxidizer with an overall OC control efficiency of at least 98 percent.

The permittee shall control organic compound emissions from this emissions unit by use of a thermal oxidizer with a minimum overall OC control efficiency of 98% by weight. This requirement shall apply whenever the permittee is using OC-containing materials.

The actual emissions of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act from emissions units P002 (capsule production line), P007 (fluid bed dryer), P008(dry products line), P009(quality control lab), P010 (dry packaging), P012(lozenge manufacturing), P014 (granulation processing), P003 (Tablet coating line), P004 (Tablet coating line), P005 (Tablet coating line), P006 (Tablet coating line) and P048 (Tablet coating line), P001 (drying oven), P044-P047 (drying ovens), P049 (drying oven) and P050 (drying oven), including any de minimis emissions units as defined in OAC rule 3745-15-05, any registration status and/or permanent exemption air contaminant sources installed subsequent to the issuance of this permit shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs. Compliance with the above limitations shall be based on a rolling, 12-month summation.

The permittee shall satisfy the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology (BAT) requirements established pursuant to OAC rule 3745-31-05(A)(3) in this permit to install. The design of the emissions unit and the technology associated with the current operating practices satisfy the BAT requirements.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. This rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Until the U.S. EPA approves the revision to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

The permittee shall satisfy the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06 by committing to comply with the best available technology (BAT) requirements established pursuant to OAC rule 3745-31-05(A)(3) in this permit to install. The design of the emissions unit and the technology associated with the current operating practices satisfy the BAT requirements.

On February 15, 2005, OAC rule 3745-23-06 was rescinded; therefore, this rule is no longer part of the State regulations. This rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Until the U.S. EPA approves the revision to OAC rule 3745-23-06, the requirement to satisfy the "latest available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

The hourly emissions limitations for PE, PM10, PM2.5, SO2, NOx, CO and OC and the annual PE, PM10, PM2.5, SO2, NOx, and CO emissions limits are based upon the emissions unit's potential to emit. Therefore, no records are required to demonstrate compliance with these limits.

B. Operational Restrictions

- 1. The pressure drop across the particulate filter (cartridge filter) while the emissions unit is in operation shall be maintained either within the range of 0.25 to 4 inches of water or that range which was established during the most recent emission test that demonstrated the emissions unit was in compliance.
- 2. The organic solvent usage rate shall not exceed 1,100,000 pounds per year, based on a rolling, 12-month summation for emissions units P003 and P048 combined. The organic solvent usage rate, in pounds, equates to the assumption that 100% of the all the organic solvent is emitted.
- 3. The average combustion temperature within the chamber within the thermal oxidizer, for any 3-hour block of time when the emissions unit is in operation, shall be maintained above 1450 degrees Fahrenheit or shall not be

more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance.

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information each month for emissions units P003 and P048:
 - a. the company identification of each coating/solvent and cleanup material employed in these emissions units;
 - b. the amount of OC materials employed, in pounds per month;
 - c. the organic compound emissions, in tons per month; and
 - d. the updated, rolling 12-month summation of the organic solvent usage rate for P003 and P048 combined, in pounds. This shall include the information for the current month and the preceding eleven months.
 - e. the updated, rolling 12-month summation of the OC emissions for P003 and P048, in tons. This shall include the information for the current month and the preceding eleven months.
2. The permittee shall collect and record the following information each month for the emissions units described in term A.2.c:
 - a. The name and identification number of each coating or solvent employed;
 - b. The individual Hazardous Air Pollutant (HAP)* content for each HAP of each coating or solvent in pounds of individual HAP per pound of coating or solvent, as applied;
 - c. The total combined HAP content of each coating or solvent in pounds of combined HAPs per pound of coating or solvent, as applied [sum all the individual HAP contents from (b)];
 - d. The number of pounds of each coating or solvent employed;
 - e. The name and identification of each cleanup material employed;
 - f. The individual HAP content for each HAP of each cleanup material, in pounds of individual HAP per gallon of cleanup material, as applied;
 - g. The total combined HAP content of each cleanup material, in pounds of combined HAPs per gallon of cleanup material, as applied [sum all the individual HAP contents from (f)];
 - h. The number of gallons of each cleanup material employed;
 - i. The total individual HAP emissions from each HAP from all coatings (or solvents) and cleanup materials employed, in pounds or tons per month [for each HAP the sum of (b) times (d) times the emissions factor (if applicable) for each coating or solvent plus the sum of (f) times (h) for each cleanup material plus individual HAP emissions from any de minimis, registration status and/or permit exempt emissions unit at the facility];
 - j. The total combined HAP emissions from all coatings (or solvents) and cleanup materials employed, in pounds or tons per month [the sum of (c) times (d) times the emissions factor (if applicable) for each coating or solvent plus the sum of (g) times (h) for each cleanup material plus combined HAP emissions from any de minimis, registration status and/or permit exempt emissions unit at the facility];
 - k. The updated rolling, 12-month summation of the individual HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months; and
 - l. The updated rolling, 12-month summation of the combined HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months.

* A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting Hamilton County Department of Environmental Services. This information does not have to be kept on a individual emissions unit basis.
3. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal oxidizer when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record the following information for each day:

 - a. All 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance.
 - b. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.

The control device downtime is defined as any time when the emissions unit is operating, is employing organic compounds, and the thermal oxidizer is not in operation. Monitoring device downtime is defined as any time when the emissions unit is operating, is employing organic compounds, and the temperature monitoring equipment is not in operation.
4. The permittee shall properly operate, and maintain equipment to monitor the pressure drop across the cartridge filter 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 manual(s). The permittee shall record the pressure drop across the cartridge filter on weekly basis.

5. The permit to install for this emission unit (P003) 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 SCREEN3 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN3 model was compared to the Maximum Ground-Level Concentration (MAGLC).

The following summarizes the results of the modeling for the "worst case" pollutant(s) for the emissions from P003, P005, P006, P048, P049, and P050 combined:

Pollutant: methanol
 TLV (ug/m3): 262,086
 Maximum Hourly Emission Rate (lbs/hr): 75.6
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 5,756
 MAGLC (ug/m3): 6,240

Pollutant: isopropanol
 TLV (ug/m3): 491,534
 Maximum Hourly Emission Rate (lbs/hr): 103.6
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 8194 MAGLC (ug/m3): 11,703
 Physical changes to or in the method of operation of the emissions unit after it's installation or modification could affect the parameters used to determine whether or not the "Air Toxics 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 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 "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

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 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, 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 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 it's evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. when the 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. The permittee shall submit written quarterly deviation reports to the Hamilton County Department of Environmental Services that include the following:
 - a. an identification of all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance; and
 - b. pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the particulate filter did not comply with the allowable range specified in term B.1.

If no exceedances occurred during the reporting period than a report is required stating so.
2. The permittee shall submit quarterly deviation reports to the Hamilton County Department of Environmental Services that include a log of the downtime for the particulate filter, and/or thermal oxidizer and/or monitoring equipment when this emissions unit was in operation.
3. The deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.
4. The permittee shall notify the Hamilton County Department of Environmental Services in writing of any exceedance of the HAP emissions limitations outlined in term and condition A.2.c. If no exceedances occurred, the permittee shall state so in the report. The reports shall be submitted by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarters (October through December, January through March, April through June and July through September, respectively.)

5. The permittee shall submit written reports to the Hamilton County Department of Environmental Services which identify the amount of organic compounds (solvent) employed per month and the updated rolling, 12-month summation of the amount of organic compounds employed for emissions unit P003 and P048 combined. The reports shall also include the monthly OC emissions rate and the updated rolling, 12-month OC emissions rate. The reports shall be submitted by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarters (October through December, January through March, April through June and July through September, respectively.)

E. Testing Requirements

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

Emission Limitations:

Organic Compound (OC) emissions from the process shall not exceed 1.94 pounds per hour.

Organic Compound (OC) emissions from the process shall not exceed 11.0 tons per year (TPY), as a rolling 12-month summation, for emissions units P003 and P048 combined.

Applicable Compliance Method:

The hourly OC emissions rate shall be determined by multiplying the maximum coating material throughput (pounds OC per batch divided by the hours per batch) multiplied by the efficiency of the thermal oxidizer (1-0.98), as provided in PTI application 14-05727 submitted on May 23, 2005.

The annual OC emissions shall be determined by multiplying the amount of OC material employed per month in emission unit P003 and P048 combined over the preceding 12 month period times one minus 0.98 and dividing by 2000 lbs/ton to obtain tons OC per year.
2. Emission Limitations:

Particulate emissions (PE), particulate matter emissions 10 microns and less in diameter (PM10) and particulate matter emissions 2.5 microns and less in diameter (PM2.5) from the process shall not exceed 0.53 pound per hour and 2.33 TPY.

Applicable Compliance Method:

PE, PM10 and PM2.5 emissions rates shall be determined by multiplying the total coating material throughput (pounds per batch divided by the hours per batch) by the percent solids in the coating (25%), times the solids transfer factor of the tablet coating (1-0.67), times the particulate not controlled by the 95% efficient rotocloner (1-0.95), as provided in PTI application 14-05727 submitted on May 23, 2005.

The annual PE, PM10 and PM2.5 emission rates shall be determined by multiplying the hourly emissions by 8760 hours per year and divided by 2000 lbs/ton.
3. Emission Limitation:

The total allowable emissions of Hazardous Air Pollutants (HAPs) from the emissions units identified in term and condition A.2.c. shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs.

Applicable Compliance Method:

Compliance with the HAP emission limitations shall be based on the record keeping requirements established in term and condition C.2.
4. Emission Limitation:

Visible particulate emissions from any stack shall not exceed 10 percent opacity, as a 6-minute average.

Applicable Compliance Method:

Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).
5. Compliance with the organic material usage limitations of term and condition B.2 shall be demonstrated by the record keeping in term and condition C.1.
6. Compliance with the particulate control device pressure differential requirements of term and condition B.1 shall be demonstrated by the recordkeeping in term and condition C.4.
7. Compliance with the minimum temperature within the regenerative thermal oxidizer requirements of term and condition B.3 shall be demonstrated by the recordkeeping in term and condition C.3.
8. Emission Limitations:

Particulate emissions (PE) shall not exceed 0.01 pound per hour and 0.05 TPY from natural gas combustion in the regenerative thermal oxidizer.

Applicable Compliance Method:

PE/PM10/PM2.5 emissions rates shall be determined by multiplying the maximum fuel use for the regenerative thermal oxidizer (1600 cubic feet per hour divided by 1,000,000) times the emission factor (7.6 lb PM/MMft³). The emissions factor 7.6 lb/MMft³ was taken from AP-42, Fifth Edition, Chapter 1.4, Natural Gas Combustion (July 1998.) The annual emission rate shall be determined by multiplying the maximum emissions hourly rate by 8760 hours per year and dividing by 2000 lbs per ton. All PM10 and PM2.5 was assumed equal to the PE rate.

9. Emission Limitations:

Sulfur Dioxide (SO₂) emissions shall not exceed 0.001 pound per hour and 0.004 TPY from natural gas combustion in the regenerative thermal oxidizer.

Applicable Compliance Method:

SO₂ emissions rates shall be determined by multiplying the maximum fuel use for the regenerative thermal oxidizer (1600 cubic feet per hour divided by 1,000,000) times the emission factor (0.6 lb SO₂/MMft³). The emissions factor 0.6 lb/MMft³ was taken from AP-42, Fifth Edition, Chapter 1.4, Natural Gas Combustion (July 1998.) The annual emission rate shall be determined by multiplying the maximum emissions hourly rate by 8760 hours per year and dividing by 2000 lbs per ton.

10. Emission Limitations:

Nitrogen Oxides (NO_x) emissions shall not exceed 0.16 pound per hour and 0.70 TPY from natural gas combustion in the regenerative thermal oxidizer.

Applicable Compliance Method:

NO_x emissions rates shall be determined by multiplying the maximum fuel use for the regenerative thermal oxidizer (1600 cubic feet per hour divided by 1,000,000) times the emission factor (100 lb NO_x/MMft³). The emissions factor 100 lb/MMft³ was taken from AP-42, Fifth Edition, Chapter 1.4, Natural Gas Combustion (July 1998.) The annual emission rate shall be determined by multiplying the maximum emissions hourly rate by 8760 hours per year and dividing by 2000 lbs per ton. Emissions limitations:

0.13 lb per hour and 0.59 TPY CO from natural gas combustion in the regenerative thermal oxidizer

Applicable Compliance Method:

CO emissions rates shall be determined by multiplying the maximum fuel use for the regenerative thermal oxidizer (1600 cubic feet per hour divided by 1,000,000) times the emission factor (84 lb CO/MMft³). The emissions factor 84 lb/MMft³ was taken from AP-42, Fifth Edition, Chapter 1.4, Natural Gas Combustion (July 1998.) The annual emission rate shall be determined by multiplying the maximum emissions hourly rate by 8760 hours per year and dividing by 2000 lbs per ton.

11. Emission Limitations:

Organic Compound (OC) emissions shall not exceed 0.02 pound per hour and 0.08 TPY from natural gas combustion in the regenerative thermal oxidizer.

Applicable Compliance Method:

OC emissions rates shall be determined by multiplying the maximum fuel use for the regenerative thermal oxidizer (1600 cubic feet per hour divided by 1,000,000) times the emission factor (11 lb OC/MMft³). The emissions factor 11 lb/MMft³ was taken from AP-42, Fifth Edition, Chapter 1.4, Natural Gas Combustion (July 1998.) The annual emission rate shall be determined by multiplying the maximum emissions hourly rate by 8760 hours per year and dividing by 2000 lbs per ton.

12. Emission testing requirements:

The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

- a. The emissions testing shall be performed within six months of the expiration of the permit to operate for this emissions unit.
- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emissions rate for OC and the 98% OC overall control efficiency for the thermal oxidizer.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):
for OC, Method 25 or 25 A as per 40 CFR Part 60, Subpart A.

Alternative U.S. EPA approved test methods may be used with prior approval from the Hamilton County Department of Environmental Services.

The test method(s) which must be employed to demonstrate compliance with the destruction efficiency for the thermal oxidizer are specified below.

- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Hamilton County Department of Environmental Services.

The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10 or an approved alternative test protocol. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Hamilton County Department of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Hamilton County Department of Environmental Services refusal to accept the results of the emission test(s).

Personnel from the Hamilton County Department of Environmental Services shall be permitted to witness the

test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Hamilton County Department of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Hamilton County Department of Environmental Services.

F. Miscellaneous Requirements

1. The following terms and conditions in this permit are federally enforceable: Sections A, B, C.1-C.4, D and E.

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

Facility ID: 1431380503 Emissions Unit ID: P048 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>
P048-60-inch tablet coating pan (TT-23) using aqueous and solvent coatings with cartridge filter and thermal oxidizer	OAC rule 3745-31-05(A)(3) (PTI 14-05727)	<p>Organic Compound (OC) emissions from the process shall not exceed 3.03 pounds per hour.</p> <p>OC* emissions from the process shall not exceed 11.0 tons per year (TPY), as a rolling 12-month summation, for emissions units P003 and P048 combined.</p> <p>*for purposes of non-attainment review for ozone, all volatile organic compound (VOC) emissions are considered to be OC.</p> <p>Particulate emissions (PE) from the process shall not exceed 0.83 pound per hour and 3.65 TPY.</p> <p>Particulate matter emissions 10 microns and less in diameter (PM10) and particulate matter emissions 2.5 microns and less in diameter (PM2.5) from the process shall not exceed 0.83 pound per hour and 3.65 TPY.</p> <p>Emissions from the combustion of natural gas in the regenerative thermal oxidizer shall not exceed the following:</p> <p>Particulate emissions (PE) shall not exceed 0.01 pound per hour and 0.05 TPY.</p> <p>Particulate matter emissions 10 microns and less in diameter (PM10) shall not exceed 0.01 pound per hour and 0.05 TPY.</p> <p>Particulate matter emissions 2.5 microns and less in diameter (PM2.5) shall not exceed 0.01 pound per hour and 0.05 TPY.</p> <p>Sulfur Dioxide (SO2) emissions shall not exceed 0.001 pound per hour and 0.004 TPY.</p>

Nitrogen Oxides (NOx) emissions shall not exceed 0.16 pound per hour and 0.70 TPY.

Carbon Monoxide (CO) emissions shall not exceed 0.13 pound per hour and 0.59 TPY.

Organic Compound (OC) emissions shall not exceed 0.02 pound per hour and 0.08 TPY.

(These emissions are from the one thermal oxidizer which controls emissions units P003, P048, P049, and P050.)

The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-08(B), OAC rule 3745-23-06(B) and OAC rule 3745-31-05 (C).

Visible particulate emissions from any stack shall not exceed 10 percent opacity, as a six-minute average.

See terms B.1 and B.3.

OAC rule 3745-17-07(A)(1) The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

OAC rule 3745-17-11(B) The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

OAC rule 3745-21-07(G) The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

OAC rule 3745-31-05(C) See terms A.2.b, A.2.c and B.2.

OAC rule 3745-21-08(B) See term A.2.d.

OAC rule 3745-23-06(B) See term A.2.e.

2. Additional Terms and Conditions

- (a) Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by emissions limitations, the use of a particulate filter with a particulate emissions control efficiency of at least 95 percent and the use of a thermal oxidizer with an overall OC control efficiency of at least 98 percent. The permittee shall control organic compound emissions from this emissions unit by use of a thermal oxidizer with a minimum overall OC control efficiency of 98% by weight. This requirement shall apply whenever the permittee is using OC-containing materials.

The actual emissions of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act from emissions units P002 (capsule production line), P007 (fluid bed dryer), P008(dry products line), P009(quality control lab), P010 (dry packaging), P012(lozenge manufacturing), P014 (granulation processing), P003 (Tablet coating line), P004 (Tablet coating line), P005 (Tablet coating line), P006 (Tablet coating line) and P048 (Tablet coating line), P001 (drying oven), P044-P047 (drying ovens), P049 (drying oven) and P050 (drying oven), including any de minimis emissions units as defined in OAC rule 3745-15-05, any registration status and/or permanent exemption air contaminant sources installed subsequent to the issuance of this permit shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs. Compliance with the above limitations shall be based on a rolling, 12-month summation.

The permittee shall satisfy the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology (BAT) requirements established pursuant to OAC rule 3745-31-05(A)(3) in this permit to install. The design of the emissions unit and the technology associated with the current operating practices satisfy the BAT requirements.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. This rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Until the U.S. EPA approves the revision to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

The permittee shall satisfy the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06 by committing to comply with the best available technology (BAT) requirements established pursuant to OAC rule 3745-31-05(A)(3) in this permit to install. The design of the emissions unit and the technology associated with the current operating practices satisfy the BAT requirements.

On February 15, 2005, OAC rule 3745-23-06 was rescinded; therefore, this rule is no longer part of the State regulations. This rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Until the U.S. EPA approves the revision to OAC rule 3745-23-06, the requirement to satisfy the "latest available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

The hourly emissions limitations for PE, PM10, PM2.5, SO2, NOx, CO and OC and the annual PE, PM10, PM2.5, SO2, NOx, and CO emissions limits are based upon the emissions unit's potential to emit. Therefore, no records are required to demonstrate compliance with these limits.

B. Operational Restrictions

- 1. The pressure drop across the particulate filter (cartridge filter) while the emissions unit is in operation shall be maintained either within the range of 0.25 to 4 inches of water or that range which was established during the

most recent emission test that demonstrated the emissions unit was in compliance.

2. The organic solvent usage rate shall not exceed 1,100,000 pounds per year, based on a rolling, 12-month summation for emissions units P003 and P048 combined. The organic solvent usage rate, in pounds, equates to the assumption that 100% of the all the organic solvent is emitted.
3. The average combustion temperature within the chamber within the thermal oxidizer, for any 3-hour block of time when the emissions unit is in operation, shall be maintained above 1450 degrees Fahrenheit or shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance.

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information each month for emissions units P003 and P048:
 - a. the company identification of each coating/solvent and cleanup material employed in these emissions units;
 - b. the amount of OC materials employed, in pounds per month;
 - c. the organic compound emissions, in tons per month; and
 - d. the updated, rolling 12-month summation of the organic solvent usage rate for P003 and P048 combined, in pounds. This shall include the information for the current month and the preceding eleven months.
 - e. the updated, rolling 12-month summation of the OC emissions for P003 and P048, in tons. This shall include the information for the current month and the preceding eleven months.
2. The permittee shall collect and record the following information each month for the emissions units described in term A.2.c:
 - a. The name and identification number of each coating or solvent employed;
 - b. The individual Hazardous Air Pollutant (HAP)* content for each HAP of each coating or solvent in pounds of individual HAP per pound of coating or solvent, as applied;
 - c. The total combined HAP content of each coating or solvent in pounds of combined HAPs per pound of coating or solvent, as applied [sum all the individual HAP contents from (b)];
 - d. The number of pounds of each coating or solvent employed;
 - e. The name and identification of each cleanup material employed;
 - f. The individual HAP content for each HAP of each cleanup material, in pounds of individual HAP per gallon of cleanup material, as applied;
 - g. The total combined HAP content of each cleanup material, in pounds of combined HAPs per gallon of cleanup material, as applied [sum all the individual HAP contents from (f)];
 - h. The number of gallons of each cleanup material employed;
 - i. The total individual HAP emissions from each HAP from all coatings (or solvents) and cleanup materials employed, in pounds or tons per month [for each HAP the sum of (b) times (d) times the emissions factor (if applicable) for each coating or solvent plus the sum of (f) times (h) for each cleanup material plus individual HAP emissions from any de minimis, registration status and/or permit exempt emissions unit at the facility];
 - j. The total combined HAP emissions from all coatings (or solvents) and cleanup materials employed, in pounds or tons per month [the sum of (c) times (d) times the emissions factor (if applicable) for each coating or solvent plus the sum of (g) times (h) for each cleanup material plus combined HAP emissions from any de minimis, registration status and/or permit exempt emissions unit at the facility];
 - k. The updated rolling, 12-month summation of the individual HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months; and
 - l. The updated rolling, 12-month summation of the combined HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months.

* A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting Hamilton County Department of Environmental Services. This information does not have to be kept on a individual emissions unit basis.
3. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal oxidizer when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record the following information for each day:

- a. All 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance.
- b. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.

The control device downtime is defined as any time when the emissions unit is operating, is employing organic compounds, and the thermal oxidizer is not in operation. Monitoring device downtime is defined as

any time when the emissions unit is operating, is employing organic compounds, and the temperature monitoring equipment is not in operation.

4. The permittee shall properly operate, and maintain equipment to monitor the pressure drop across the cartridge filter 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 manual(s). The permittee shall record the pressure drop across the cartridge filter on weekly basis.
5. The permit to install for this emission unit (P048) 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 SCREEN3 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN3 model was compared to the Maximum Ground-Level Concentration (MAGLC).

The following summarizes the results of the modeling for the "worst case" pollutant(s) for the emissions from P003, P005, P006, P048, P049, and P050 combined:

Pollutant: methanol
 TLV (ug/m3): 262,086
 Maximum Hourly Emission Rate (lbs/hr): 75.6
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 5,756
 MAGLC (ug/m3): 6,240

Pollutant: isopropanol
 TLV (ug/m3): 491,534
 Maximum Hourly Emission Rate (lbs/hr): 103.6
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 8194 MAGLC (ug/m3): 11,703

Physical changes to or 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 Toxics 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 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 "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

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 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, 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 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. when the 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. The permittee shall submit written quarterly deviation reports to the Hamilton County Department of Environmental Services that include the following:
 - a. an identification of all 3-hour blocks of time during which the average combustion temperature within the thermal oxidizer, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance; and
 - b. pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the particulate filter did not comply with the allowable range specified in term B.1.

If no exceedances occurred during the reporting period than a report is required stating so.

2. The permittee shall submit quarterly deviation reports to the Hamilton County Department of Environmental Services that include a log of the downtime for the particulate filter, and/or thermal oxidizer and/or monitoring equipment when this emissions unit was in operation.
3. The deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the General

Terms and Conditions of this permit.

4. The permittee shall notify the Hamilton County Department of Environmental Services in writing of any exceedance of the HAP emissions limitations outlined in term and condition A.2.c. If no exceedances occurred, the permittee shall state so in the report. The reports shall be submitted by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarters (October through December, January through March, April through June and July through September, respectively.)
5. The permittee shall submit written reports to the Hamilton County Department of Environmental Services which identify the amount of organic compounds (solvent) employed per month and the updated rolling, 12-month summation of the amount of organic compounds employed for emissions unit P003 and P048 combined. The reports shall also include the monthly OC emissions rate and the updated rolling, 12-month OC emissions rate. The reports shall be submitted by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarters (October through December, January through March, April through June and July through September, respectively.)

E. Testing Requirements

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

Emission Limitations:

Organic Compound (OC) emissions from the process shall not exceed 3.03 pounds per hour.

Organic Compound (OC) emissions from the process shall not exceed 11.0 tons per year (TPY), as a rolling 12-month summation, for emissions units P003 and P048 combined.

Applicable Compliance Method:

The hourly OC emissions rate shall be determined by multiplying the maximum coating material throughput (pounds OC per batch divided by the hours per batch) multiplied by the efficiency of the thermal oxidizer (1-0.98), as provided in PTI application 14-05727 submitted on May 23, 2005.

The annual OC emissions shall be determined by multiplying the amount of OC material employed per month in emission unit P003 and P048 combined over the preceding 12 month period times one minus 0.98 and dividing by 2000 lbs/ton to obtain tons OC per year.

2. Emission Limitations:

Particulate emissions (PE), particulate matter emissions 10 microns and less in diameter (PM10) and particulate matter emissions 2.5 microns and less in diameter (PM2.5) from the process shall not exceed 0.83 pound per hour and 3.65 TPY.

Applicable Compliance Method:

PE, PM10 and PM2.5 emissions rates shall be determined by multiplying the total coating material throughput (pounds per batch divided by the hours per batch) by the percent solids in the coating (25%), times the solids transfer factor of the tablet coating (1-0.67), times the particulate not controlled by the 95% efficient rotoclone (1-0.95), as provided in PTI application 14-05727 submitted on May 23, 2005.

The annual PE, PM10 and PM2.5 emission rates shall be determined by multiplying the hourly emissions by 8760 hours per year and divided by 2000 lbs/ton.

3. Emission Limitation:

The total allowable emissions of Hazardous Air Pollutants (HAPs) from the emissions units identified in term and condition A.2.c shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs.

Applicable Compliance Method:

Compliance with the HAP emission limitations shall be based on the record keeping requirements established in term and condition C.2.

4. Emission Limitation:

Visible particulate emissions from any stack shall not exceed 10 percent opacity, as a 6-minute average.

Applicable Compliance Method:

Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

5. Compliance with the organic material usage limitations of term and condition B.2 shall be demonstrated by the record keeping in term and condition C.1.
6. Compliance with the particulate control device pressure differential requirements of term and condition B.1 shall be demonstrated by the recordkeeping in term and condition C.4.
7. Compliance with the minimum temperature within the regenerative thermal oxidizer requirements of term and condition B.3 shall be demonstrated by the recordkeeping in term and condition C.3.
8. Emission Limitations:

Particulate emissions (PE) shall not exceed 0.01 pound per hour and 0.05 TPY from natural gas combustion in the regenerative thermal oxidizer.

Applicable Compliance Method:

PE/PM10/PM2.5 emissions rates shall be determined by multiplying the maximum fuel use for the regenerative thermal oxidizer (1600 cubic feet per hour divided by 1,000,000) times the emission factor (7.6 lb PM/MMft³). The emissions factor 7.6 lb/MMft³ was taken from AP-42, Fifth Edition, Chapter 1.4, Natural Gas Combustion (July 1998.) The annual emission rate shall be determined by multiplying the maximum emissions hourly rate by 8760 hours per year and dividing by 2000 lbs per ton. All PM10 and PM2.5 was assumed equal to the PE rate.

9. Emission Limitations:

Sulfur Dioxide (SO₂) emissions shall not exceed 0.001 pound per hour and 0.004 TPY from natural gas combustion in the regenerative thermal oxidizer.

Applicable Compliance Method:

SO₂ emissions rates shall be determined by multiplying the maximum fuel use for the regenerative thermal oxidizer (1600 cubic feet per hour divided by 1,000,000) times the emission factor (0.6 lb SO₂/MMft³). The emissions factor 0.6 lb/MMft³ was taken from AP-42, Fifth Edition, Chapter 1.4, Natural Gas Combustion (July 1998.) The annual emission rate shall be determined by multiplying the maximum emissions hourly rate by 8760 hours per year and dividing by 2000 lbs per ton.

10. Emission Limitations:

Nitrogen Oxides (NO_x) emissions shall not exceed 0.16 pound per hour and 0.70 TPY from natural gas combustion in the regenerative thermal oxidizer.

Applicable Compliance Method:

NO_x emissions rates shall be determined by multiplying the maximum fuel use for the regenerative thermal oxidizer (1600 cubic feet per hour divided by 1,000,000) times the emission factor (100 lb NO_x/MMft³). The emissions factor 100 lb/MMft³ was taken from AP-42, Fifth Edition, Chapter 1.4, Natural Gas Combustion (July 1998.) The annual emission rate shall be determined by multiplying the maximum emissions hourly rate by 8760 hours per year and dividing by 2000 lbs per ton. Emissions limitations:

0.13 lb per hour and 0.59 TPY CO from natural gas combustion in the regenerative thermal oxidizer

Applicable Compliance Method:

CO emissions rates shall be determined by multiplying the maximum fuel use for the regenerative thermal oxidizer (1600 cubic feet per hour divided by 1,000,000) times the emission factor (84 lb CO/MMft³). The emissions factor 84 lb/MMft³ was taken from AP-42, Fifth Edition, Chapter 1.4, Natural Gas Combustion (July 1998.) The annual emission rate shall be determined by multiplying the maximum emissions hourly rate by 8760 hours per year and dividing by 2000 lbs per ton.

11. Emission Limitations:

Organic Compound (OC) emissions shall not exceed 0.02 pound per hour and 0.08 TPY from natural gas combustion in the regenerative thermal oxidizer.

Applicable Compliance Method:

OC emissions rates shall be determined by multiplying the maximum fuel use for the regenerative thermal oxidizer (1600 cubic feet per hour divided by 1,000,000) times the emission factor (11 lb OC/MMft³). The emissions factor 11 lb/MMft³ was taken from AP-42, Fifth Edition, Chapter 1.4, Natural Gas Combustion (July 1998.) The annual emission rate shall be determined by multiplying the maximum emissions hourly rate by 8760 hours per year and dividing by 2000 lbs per ton.

12. Emission testing requirements:

The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

- a. The emissions testing shall be performed within six months of the expiration of the permit to operate for this emissions unit.
- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emissions rate for OC and the 98% OC overall control efficiency for the thermal oxidizer.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):
for OC, Method 25 or 25 A as per 40 CFR Part 60, Subpart A.

Alternative U.S. EPA approved test methods may be used with prior approval from the Hamilton County Department of Environmental Services.

The test method(s) which must be employed to demonstrate compliance with the destruction efficiency for the thermal oxidizer are specified below.

- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Hamilton County Department of Environmental Services.

The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10 or an approved alternative test protocol. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Hamilton County Department of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Hamilton County Department of Environmental Services refusal to accept the results of the emission test(s).

Personnel from the Hamilton County Department of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Hamilton County Department of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Hamilton County Department of Environmental Services.

F. Miscellaneous Requirements

1. The following terms and conditions in this permit are federally enforceable: Sections A, B, C.1-C.4, D and E.