

Synthetic Minor Determination and/or Netting Determination

Permit To Install 03-17006

A. Source Description

This permit is for six coating lines consisting of multiple spray booths and infrared ovens (K001- K006), a clean-up (equipment wipe-down) operation (K007), an injection molding flaw repair station (P001), and a maintenance paint booth (K008). Emissions units K001-K006 are all controlled by a common RTO.

B. Facility Emissions and Attainment Status

M-Tek, Inc. has potential emissions of VOC below the Title V major source threshold of 100 tons per year. Wyandot County is designated as attainment for all criteria pollutants. The company has requested synthetic minor limitations on Hazardous Air Pollutants (HAPs) to avoid Title V and MACT applicability.

C. Source Emissions

M-Tek, Inc. has requested a HAPs limitation of 8.75 tons, per rolling 12-month period for any individual HAP and 23.0 tons per rolling, 12-month period for any combination of HAP's for K001-K008 and P001 combined due to other emissions units at the facility having HAP emissions.

D. Conclusion

With federally enforceable restrictions in place for HAP emissions, facility wide HAP emissions will be less than 10 tons for any individual HAP and less than 25 tons for a combination of HAP's making M-TEK a "minor" facility for Title V and MACT applicability.



State of Ohio Environmental Protection Agency

Street Address:

Lazarus Gov. Center
50 West Town Street, Suite 700
Columbus, OH 43215

TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

Lazarus Gov. Center
P.O. Box 1049
Columbus, OH 43216-1049

CERTIFIED MAIL

RE: DRAFT PERMIT TO INSTALL

WYANDOT COUNTY

Application No: 03-17006

Fac ID: 0388010052

DATE: 2/27/2007

M-TEK, Inc.
Dennis Derr
1111 North Warpole Street
Upper Sandusky, OH 43351

	TOXIC REVIEW
	PSD
Y	SYNTHETIC MINOR
	CEMS
	MACT
	NSPS
	NESHAPS
	NETTING
	MAJOR NON-ATTAINMENT
Y	MODELING SUBMITTED
	GASOLINE DISPENSING FACILITY

You are hereby notified that the Ohio Environmental Protection Agency has made a draft action recommending that the Director issue a Permit to Install for the air contaminant source(s) [emissions unit(s)] shown on the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the proposed installation. A public notice concerning the draft permit will appear in the Ohio EPA Weekly Review and the newspaper in the county where the facility will be located. Public comments will be accepted by the field office within 30 days of the date of publication in the newspaper. Any comments you have on the draft permit should be directed to the appropriate field office within the comment period. A copy of your comments should also be mailed to Robert Hodanbosi, Division of Air Pollution Control, Ohio EPA, P.O. Box 1049, Columbus, OH, 43216-1049.

A Permit to Install may be issued in proposed or final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install a fee of **\$1800** will be due. Please do not submit any payment now.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469. If you have any questions about this draft permit, please contact the field office where you submitted your application, or Mike Ahern, Field Operations & Permit Section at (614) 644-3631.

Sincerely,

Michael W. Ahern, Manager
Permit Issuance and Data Management Section
Division of Air Pollution Control

WYANDOT COUNTY

PUBLIC NOTICE

**ISSUANCE OF DRAFT PERMIT TO INSTALL 03-17006 FOR AN AIR CONTAMINANT SOURCE FOR
M-TEK, Inc.**

On 2/27/2007 the Director of the Ohio Environmental Protection Agency issued a draft action of a Permit To Install an air contaminant source for **M-TEK, Inc.**, located at **1111 Warpole Street, Upper Sandusky, Ohio**.

Installation of the air contaminant source identified below may proceed upon final issuance of Permit To Install 03-17006:

6 spray booth/oven lines, clean-up station, injection molding flaw repair stations and maintenance paint booth

Comments concerning this draft action, or a request for a public meeting, must be sent in writing to the address identified below no later than thirty (30) days from the date this notice is published. All inquiries concerning this draft action may be directed to the contact identified below.

Don Waltermeyer, Ohio EPA, Northwest District Office, 347 North Dunbridge Road, Bowling Green, OH 43402 [(419)352-8461]



**Permit To Install
Terms and Conditions**

**Issue Date: To be entered upon final issuance
Effective Date: To be entered upon final issuance**

DRAFT PERMIT TO INSTALL 03-17006

Application Number: 03-17006
Facility ID: 0388010052
Permit Fee: **To be entered upon final issuance**
Name of Facility: M-TEK, Inc.
Person to Contact: Dennis Derr
Address: 1111 North Warpole Street
Upper Sandusky, OH 43351

Location of proposed air contaminant source(s) [emissions unit(s)]:
**1111 Warpole Street
Upper Sandusky, Ohio**

Description of proposed emissions unit(s):
6 spray booth/oven lines, clean-up station, injection molding flaw repair stations and maintenance paint booth

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Chris Korleski
Director

Part I - GENERAL TERMS AND CONDITIONS

A. Permit to Install General Terms and Conditions

1. Compliance Requirements

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

2. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted (i.e., postmarked) quarterly by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

3. Records Retention Requirements

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections,

conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

6. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

7. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

8. Termination of Permit to Install

This Permit to Install shall terminate within eighteen months of the effective date of the Permit to Install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

9. Construction of New Sources(s)

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental

Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

10. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

11. Applicability

This Permit To Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

12. Best Available Technology

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

13. Source Operation and Operating Permit Requirements After Completion of Construction

This facility is permitted to operate each source described by this Permit to Install for a period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the emissions unit(s) covered by this permit.

14. Construction Compliance Certification

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit to Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

15. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit to Install fees within 30 days after the issuance of this Permit to Install.

B. Permit to Install Summary of Allowable Emissions

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

**SUMMARY (for informational purposes only)
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS**

<u>Pollutant</u>	<u>Tons Per Year</u>
OC	49.66
Individual HAPs	8.75
Combined HAPs	23.0
NOx	2.23
CO	1.88
PM10	1.80
PE	1.80

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

- The specific operations(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 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>
K001 - Line 10, consisting of 3 spray booths and 2 infrared ovens with dry filtration and a regenerative thermal oxidizer control system (modification to multiple previously issued PTI's to re-permit this coating operation as a line)	OAC rule 3745-31-05 (A)(3)	0.55 lb organic compounds (OC)/hour; 2.41 tons OC/year from coating and cleanup operations Control requirements (See A.2.a) Emissions from Regenerative Thermal Oxidizer (RTO): 0.51 lb nitrogen oxide (NOx)/hour; 2.23 tons NOx/year from K001-K006 combined 0.43 lb carbon monoxide (CO)/hour; 1.88 tons CO/year from K001-K006 combined 0.41 lb particulate matter 10 microns or less in size (PM10)/hour (See A.2.i) Visible particulate emissions shall not exceed 5% opacity, as a 6-minute average.
	OAC rule 3745-31-05 (C)	See A.2.b 8.75 tons per rolling, 12- month period for any individual Hazardous Air Pollutant (HAP)

	and 23.0 tons per rolling, 12-month period for any combination of HAPs for emissions unit K001-K008 and P001 combined (See A.2.c)
OAC rule 3745-21-07 (G)(2)	See A.2.d
OAC rule 3745-21-08(B)	See A.2.e
OAC rule 3745-17-07(A)	See A.2.g
OAC rule 3745-17-11(B)	See A.2.h

2. Additional Terms and Conditions

- 2.a** Best available technology (BAT) control requirements for this emissions unit has been determined to be use of a carbon bed-type concentrator and regenerative thermal oxidizer for OC and HAP control with an overall control efficiency of 90.97% (100% capture).
- 2.b** The requirements of this rule include compliance with the requirements of OAC rule 3745-31-05 (C).
- 2.c** This permit establishes federally enforceable limitations on emissions of hazardous air pollutants (HAPs) for purposes of avoiding Maximum Achievable Control Technology (MACT) regulations and Title V permitting requirements.

Annual HAP emissions from emissions unit K001-K008 and P001 combined shall not exceed 8.75 tons per year for any individual HAP and 23.0 tons per year for any combination of HAPs, based on a rolling, 12 - month summation of the monthly HAP emissions.

To ensure federal enforceability during the first 12 calendar months of operation under the provisions of this permit, the permittee shall not exceed the HAP emission rates specified in the following table for K001-K008 and P001 combined:

Maximum Allowable Cumulative HAP Emission Rates (tons):

<u>Month(s)</u>	<u>Individual HAP</u>	<u>Combined HAPs</u>
1-1	0.73	1.92
1-2	1.46	3.84

1-3	2.19	5.76
1-4	2.92	7.68
1-5	3.65	9.60
1-6	4.38	11.52
1-7	5.11	13.44
1-8	5.84	15.36
1-9	6.57	17.28
1-10	7.30	19.20
1-11	8.03	21.12
1-12	8.75	23.00

After the first 12 calendar months of operation under the provisions of this permit, compliance with the annual HAP limitations shall be based upon a rolling, 12-month summation of the monthly HAP emission rates.

- 2.d** The emission limitation specified in this rule is less stringent than the emissions limitation established pursuant to OAC rule 3745-31-05 (A) (3).
- 2.e** The permittee has satisfied 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 requirements established pursuant to OAC rule 3745-31-05(A)(3) in this permit to install.

On November 5, 2002, OAC rule 3745-21-08 was received was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions 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.

- 2.f** The hourly emission limitation represents the potential to emit for this emissions unit. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure compliance with this emission limitation.
- 2.g** The visible emission limitation specified by this rule is less stringent than the visible emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).

- 2.h** The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).
- 2.i** All particulate matter emissions are PM10. The emission limitation of 0.41 lb PM10/hour includes emissions from coating operations from emission units K001 - K006 and combustion emissions from the RTO controlling these emissions units.

B. Operational Restrictions

- 1. The permittee shall operate the dry filtration system for the control of particulate matter whenever this emissions unit is in operation.

C. Monitoring and/or Recordkeeping Requirements

- 1. The permittee shall properly install, operate, and maintain equipment to continuously monitor and record the combustion temperature within the thermal oxidizer during operation of this emissions unit. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the combustion temperature within the thermal oxidizer on a continuous basis.

Whenever the monitored value for the combustion temperature deviates from the value specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable value specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the combustion temperature within the thermal oxidizer immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The average combustion temperature within the thermal incinerator, for any 3-hour block of time when the emissions unit is in operation, 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.

This value is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency.

2. The permittee shall collect and record the following information each month for K001:
 - a. the company identification for each coating and cleanup material employed;
 - b. the number of gallons of each coating and cleanup material employed;
 - c. the organic compound content, in pounds per gallon, as applied of each coating and cleanup material employed;
 - d. the total controlled organic emission rate for all coating and cleanup materials, in lbs/month (the controlled organic emission rate shall be calculated using the information in b and c above and the overall control efficiency from the most recent performance test that demonstrated that the emissions unit was in compliance); and
 - e. the annual year-to-date organic compound emissions from all coating and cleanup materials (sum of d for each month to date from January to December).

The company may calculate OC emissions from cleanup operations in accordance with the following formula if waste cleanup materials are sent off-site for reclamation/disposal:

OC emissions from cleanup operations = (total gallons of cleanup material used x solvent density of cleanup material) - (total gallons cleanup material sent off-site for disposal or reclamation [minus solids content of said material]) x solvent density.

3. The permittee shall collect and record the following HAP information each month for emission unit K001-K008 and P001 combined:
 - a. the company identification of each HAP containing material;
 - b. the amount of each individual HAP in each HAP containing material in lbs/gallon, as applied and/or by % weight;
 - c. the number of gallons and/or pounds of each HAP containing material employed;
 - d. the total controlled emission rate for each individual HAP from each HAP containing material employed in emissions unit K001 - K006 and the emission rate for each individual HAP from each HAP containing material employed K007, K008, and P001, for each individual HAP, in lbs/month;

- e. the total emission rate for each individual HAP from all HAP containing materials employed (summation of C.3.d for each individual HAP), in lbs/month;
 - f. the total HAP emission rate for all HAPs combined from all HAP containing materials employed (summation of C.3.e for all HAPs), in lbs/month;
 - g. for the first 12 months of operation, under the provisions of this permit, the cumulative monthly emission rate of each individual HAP and all HAPs combined, in tons per month; and
 - h. after the first 12 months of operation, under the provisions of this permit, the annual emissions of each individual HAP and all HAPs combined, based upon a rolling 12-month summation of monthly emissions.
4. The Permit to Install for this emissions units K001-K006 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 Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutants:

Pollutant: Hexane

TLV (mg/m3): 176

Maximum Hourly Emission Rate (lbs/hr): 5.76

Predicted 1-Hour Maximum Ground-Level Concentration (mg/m3): 31.22

MAGLC (mg/m3): 4190

5. 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 "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.

- 6. 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
- 7. The permittee shall maintain daily records that document any time periods when the dry filtration system for control of particulate matter was not in service when the emissions unit was in operation.
- 8. The permit to install for this emissions unit was evaluated based on information contained in the permit to install application. Prior to any physical change or change in the method of operation involving this emissions unit, the permittee shall conduct an evaluation to determine if the change would constitute a "modification" as defined in OAC rule 3745-31-01. If any physical change in, or change(s) in the method of operation is (are) defined as a modification, then the permittee shall obtain a final permit to install modification prior to performing such change. The permittee shall collect, record and retain all evaluation information and the final determination when modification evaluations are performed.

D. Reporting Requirements

1. The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:
 - a. all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent performance test that demonstrated the emissions unit was in compliance.
 - b. an identification of each incident of deviation described in (a) where a prompt investigation was not conducted;
 - c. an identification of each incident of deviation described in (a) where prompt corrective action, that would bring the combustion temperature into compliance with the acceptable range, was determined to be necessary and was not taken; and
 - d. an identification of each incident of deviation described in (a) where proper records were not maintained for the investigation and/or the corrective action.

These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

2. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. Beginning the first month after the first 12 calendar months of operation under the provisions of this permit, all exceedances of the rolling, 12-month individual HAP and combined HAPs emission limitations of 8.75 tons and 23.00 tons, respectively (for emissions units K001 - K008 and P001 combined).
 - b. for the first 12 calendar months of operation under the provisions of this permit, all exceedances of the maximum allowable cumulative individual HAP and combined HAPs emission limitations specified in section A.2.c (for emissions units K001 - K008 and P001 combined).

These reports shall be submitted in accordance with the general terms and conditions of this permit.

3. The permittee shall submit annual reports that summarize the total annual actual OC emissions from coating and cleanup operations for emissions units K001. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

4. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any daily record showing that the dry filtration system was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days after the event occurs.

E. Testing Requirements

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

- a. Emission Limitation: 0.55 lbs OC/hr, from coating and cleanup operations

Applicable Compliance Method:

The hourly allowable OC emission limitation above represents the potential to emit for this emission unit and was established by multiplying the maximum hourly coating* usage rate (1.14 gallons per hour) by the maximum OC coating content (5.31 pounds per gallon) and applying an overall control efficiency of 90.97%.

If required, the permittee shall demonstrate compliance with the hourly allowable OC emission limitation above in accordance with 40 CFR Part 60 Appendix A, Methods 1 through 4 and 18, 25, or 25A, as appropriate.

*Cleanup emissions are negligible and not included in the potential to emit calculation.

- b. Emission Limitation: 2.41 tons OC/year from coating and cleanup operations

Applicable Compliance Method: Compliance with the annual emission limitation shall be based upon the recordkeeping requirements specified in C.2.

- c. Emission Limitation: 0.51 lb NO_x/hr; 2.23 tons NO_x/year from RTO combustion emissions for K001-K006 combined

Applicable Compliance Method: Compliance with the hourly emissions limitation shall be determined by multiplying a maximum heat input of 5.2 mmBTU/hr by the emission factor in AP-42, Chapter 1.4 (revised 7/98) of 100 lbs NO_x/million scf of natural gas, and dividing by 1020 mmBtu/ mm cu. ft. of natural gas.

If required, compliance with the NO_x limitation above shall be determined in accordance with the test methods and procedures specified in 40 CFR, Part 60, Appendix A, Methods 1 - 4 and 7.

The annual NOx emission limitation was established by multiplying the hourly limitation by 8760 hours/year, and then dividing by 2000 pounds/ton. Therefore, provided compliance is demonstrated with the hourly emission limitation, compliance with the annual limitation shall also be demonstrated.

- d. Emission Limitation: 0.43 lb CO/hr; 1.88 tons CO/year from RTO combustion emissions for K001-K006 combined

Applicable Compliance Method: Compliance with the hourly emissions limitation shall be determined by multiplying a maximum heat input of 5.2 mmBTU/hr by the emission factor in AP-42, Chapter 1.4 (revised 7/98) of 84 lbs CO/million scf of natural gas, and dividing by 1020 mmBtu/ mm cu. ft. of natural gas.

If required, compliance with the CO limitation above shall be determined in accordance with the test methods and procedures specified in 40 CFR, Part 60, Appendix A, Methods 1 - 4 and 10.

The annual CO emission limitation was established by multiplying the hourly limitation by 8760 hours/year, and then dividing by 2000 pounds/ton. Therefore, provided compliance is demonstrated with the hourly emission limitation, compliance with the annual limitation shall also be demonstrated.

- e. Emission Limitation: 8.75 tons per rolling, 12- month period for any individual Hazardous Air Pollutant (HAP) and 23.0 tons per rolling, 12-month period for any combination of HAPs for emissions unit K001-K008 and P001 combined

Applicable Compliance Method: Compliance shall be based upon the record keeping requirements in section C.3.

- f. Emission Limitation:
0.41 lb PM10/hour

Applicable Compliance Method:

To determine the actual worst case PM10 rate (E), the following equation shall be used:

$$E = \text{PM10 rate (lbs/hr)}$$

E = maximum coating solids usage rate for emission units K001 - K006 combined, in pounds per hour (1-TE) x (1-CE) plus RTO combustion emissions.

TE = transfer efficiency, which is the ratio of the amount of coating solids deposited on the coated part to the amount of coating solids used (assumed to be 70%)

CE = control efficiency of the control equipment (established at 95%)

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RTO combustion emissions = 5.2 mmBTU/hr times the emission factor in AP-42, Chapter 1.4 (revised 7/98) of 7.6 lbs PM10/million scf of natural gas, and dividing by 1020 mmBTU/ mm cu. ft. of natural gas.

If required, testing shall be conducted in accordance with Methods 201 and 202, 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the appropriate Ohio EPA district office or local field office.

g. Emission Limitation:

Visible particulate emissions shall not exceed 5 percent opacity, as a six-minute average

Applicable Compliance Method:

If required, compliance shall be determined according to test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

F. Miscellaneous Requirements

None

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

- The specific operations(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 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>
K002 - Line 20, consisting of 6 spray booths and 6 infrared ovens with dry filtration and regenerative thermal oxidizer control system (modification to multiple previously issued PTI's to re-permit this coating operation as a line)	OAC rule 3745-31-05 (A)(3)	0.49 lb organic compounds (OC)/hour; 2.15 tons OC/year from coating and cleanup operations Control requirements (See A.2.a) Emissions from Regenerative Thermal Oxidizer (RTO): 0.51 lb nitrogen oxide (NOx)/hour; 2.23 tons NOx/year from K001-K006 combined 0.43 lb carbon monoxide (CO)/hour; 1.88 tons CO/year from K001-K006 combined 0.41 lb particulate matter 10 microns or less in size (PM10)/hour (See A.2.i) Visible particulate emissions shall not exceed 5% opacity, as a 6-minute average. See A.2.b
	OAC rule 3745-31-05 (C)	8.75 tons per rolling, 12- month period for any individual Hazardous Air Pollutant (HAP)

	and 23.0 tons per rolling, 12-month period for any combination of HAPs for emissions unit K001-K008 and P001 combined (See A.2.c)
OAC rule 3745-21-07 (G)(2)	See A.2.d
OAC rule 3745-21-08(B)	See A.2.e
OAC rule 3745-17-07(A)	See A.2.g
OAC rule 3745-17-11(B)	See A.2.h

2. Additional Terms and Conditions

- 2.a** Best available technology (BAT) control requirements for this emissions unit has been determined to be use of a carbon bed-type concentrator and regenerative thermal oxidizer for OC and HAP control with an overall control efficiency of 90.97% (100% capture).
- 2.b** The requirements of this rule include compliance with the requirements of OAC rule 3745-31-05 (C).
- 2.c** This permit establishes federally enforceable limitations on emissions of hazardous air pollutants (HAPs) for purposes of avoiding Maximum Achievable Control Technology (MACT) regulations and Title V permitting requirements.

Annual HAP emissions from emissions unit K001-K008 and P001 combined shall not exceed 8.75 tons per year for any individual HAP and 23.0 tons per year for any combination of HAPs, based on a rolling, 12 - month summation of the monthly HAP emissions.

To ensure federal enforceability during the first 12 calendar months of operation under the provisions of this permit, the permittee shall not exceed the HAP emission rates specified in the following table for K001-K008 and P001 combined:

Maximum Allowable Cumulative HAP Emission Rates (tons):

<u>Month(s)</u>	<u>Individual HAP</u>	<u>Combined HAPs</u>
1-1	0.73	1.92
1-2	1.46	3.84

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1-3	2.19	5.76
1-4	2.92	7.68
1-5	3.65	9.60
1-6	4.38	11.52
1-7	5.11	13.44
1-8	5.84	15.36
1-9	6.57	17.28
1-10	7.30	19.20
1-11	8.03	21.12
1-12	8.75	23.00

After the first 12 calendar months of operation under the provisions of this permit, compliance with the annual HAP limitations shall be based upon a rolling, 12-month summation of the monthly HAP emission rates.

- 2.d** The emission limitation specified in this rule is less stringent than the emissions limitation established pursuant to OAC rule 3745-31-05 (A) (3).
- 2.e** The permittee has satisfied 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 requirements established pursuant to OAC rule 3745-31-05(A)(3) in this permit to install.

On November 5, 2002, OAC rule 3745-21-08 was received was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions 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.

- 2.f** The hourly emission limitation represents the potential to emit for this emissions unit. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure compliance with this emission limitation.
- 2.g** The visible emission limitation specified by this rule is less stringent than the visible emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).

- 2.h** The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).
- 2.i** All particulate matter emissions are PM10. The emission limitation of 0.41 lb PM10/hour includes emissions from coating operations from emission units K001 - K006 and combustion emissions from the RTO controlling these emissions units.

B. Operational Restrictions

- 1. The permittee shall operate the dry filtration system for the control of particulate matter whenever this emissions unit is in operation.

C. Monitoring and/or Recordkeeping Requirements

- 1. The permittee shall properly install, operate, and maintain equipment to continuously monitor and record the combustion temperature within the thermal oxidizer during operation of this emissions unit. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the combustion temperature within the thermal oxidizer on a continuous basis.

Whenever the monitored value for the combustion temperature deviates from the value specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable value specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the combustion temperature within the thermal oxidizer immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The average combustion temperature within the thermal incinerator, for any 3-hour block of time when the emissions unit is in operation, 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.

This value is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency.

2. The permittee shall collect and record the following information each month for K001:
 - a. the company identification for each coating and cleanup material employed;
 - b. the number of gallons of each coating and cleanup material employed;
 - c. the organic compound content, in pounds per gallon, as applied of each coating and cleanup material employed;
 - d. the total controlled organic emission rate for all coating and cleanup materials, in lbs/month (the controlled organic emission rate shall be calculated using the information in b and c above and the overall control efficiency from the most recent performance test that demonstrated that the emissions unit was in compliance); and
 - e. the annual year-to-date organic compound emissions from all coating and cleanup materials (sum of d for each month to date from January to December).

The company may calculate OC emissions from cleanup operations in accordance with the following formula if waste cleanup materials are sent off-site for reclamation/disposal:

OC emissions from cleanup operations = (total gallons of cleanup material used x solvent density of cleanup material) - (total gallons cleanup material sent off-site for disposal or reclamation [minus solids content of said material]) x solvent density.

3. The permittee shall collect and record the following HAP information each month for emission unit K001-K008 and P001 combined:
 - a. the company identification of each HAP containing material;
 - b. the amount of each individual HAP in each HAP containing material in lbs/gallon, as applied and/or by % weight;
 - c. the number of gallons and/or pounds of each HAP containing material employed;
 - d. the total controlled emission rate for each individual HAP from each HAP containing material employed in emissions unit K001 - K006 and the emission rate for each individual HAP from each HAP containing material employed K007, K008, and P001, for each individual HAP, in lbs/month;

- e. the total emission rate for each individual HAP from all HAP containing materials employed (summation of C.3.d for each individual HAP), in lbs/month;
 - f. the total HAP emission rate for all HAPs combined from all HAP containing materials employed (summation of C.3.e for all HAPs), in lbs/month;
 - g. for the first 12 months of operation, under the provisions of this permit, the cumulative monthly emission rate of each individual HAP and all HAPs combined, in tons per month; and
 - h. after the first 12 months of operation, under the provisions of this permit, the annual emissions of each individual HAP and all HAPs combined, based upon a rolling 12-month summation of monthly emissions.
4. The Permit to Install for this emissions units K001-K006 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 Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutants:

Pollutant: Hexane

TLV (mg/m3): 176

Maximum Hourly Emission Rate (lbs/hr): 5.76

Predicted 1-Hour Maximum Ground-Level Concentration (mg/m3): 31.22

MAGLC (mg/m3): 4190

5. 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 "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.

- 6. 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
- 7. The permittee shall maintain daily records that document any time periods when the dry filtration system for control of particulate matter was not in service when the emissions unit was in operation.
- 8. The permit to install for this emissions unit was evaluated based on information contained in the permit to install application. Prior to any physical change or change in the method of operation involving this emissions unit, the permittee shall conduct an evaluation to determine if the change would constitute a "modification" as defined in OAC rule 3745-31-01. If any physical change in, or change(s) in the method of operation is (are) defined as a modification, then the permittee shall obtain a final permit to install modification prior to performing such change. The permittee shall collect, record and retain all evaluation information and the final determination when modification evaluations are performed.

D. Reporting Requirements

1. The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:
 - a. all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent performance test that demonstrated the emissions unit was in compliance.
 - b. an identification of each incident of deviation described in (a) where a prompt investigation was not conducted;
 - c. an identification of each incident of deviation described in (a) where prompt corrective action, that would bring the combustion temperature into compliance with the acceptable range, was determined to be necessary and was not taken; and
 - d. an identification of each incident of deviation described in (a) where proper records were not maintained for the investigation and/or the corrective action.

These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

2. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. Beginning the first month after the first 12 calendar months of operation under the provisions of this permit, all exceedances of the rolling, 12-month individual HAP and combined HAPs emission limitations of 8.75 tons and 23.00 tons, respectively (for emissions units K001 - K008 and P001 combined).
 - b. for the first 12 calendar months of operation under the provisions of this permit, all exceedances of the maximum allowable cumulative individual HAP and combined HAPs emission limitations specified in section A.2.c. (for emissions units K001 - K008 and P001 combined).

These reports shall be submitted in accordance with the general terms and conditions of this permit.

3. The permittee shall submit annual reports that summarize the total annual actual OC emissions from coating and cleanup operations for emissions units K001. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

4. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any daily record showing that the dry filtration system was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days after the event occurs.

E. Testing Requirements

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

- a. Emission Limitation: 0.49 lbs OC/hr, from coating and cleanup operations

Applicable Compliance Method:

The hourly allowable OC emission limitation above represents the potential to emit for this emission unit and was established by applying an overall control efficiency of 90.97% to a maximum uncontrolled emission rate of 5.45 lbs OC/hr. The maximum uncontrolled emission rate was established by adding the maximum emissions from two coatings and two cleanup materials applied in the operation and. Maximum uncontrolled coating and cleanup emissions were calculated as follows:

$$\text{Coating 1545B} = (6.00 \text{ lbs OC/gal}) \times (0.465 \text{ gal/hr}) = 2.79 \text{ lbs OC/hr}$$

$$\text{Coating 378} = (5.31 \text{ lbs OC/gal}) \times (0.464 \text{ gal/hr}) = 2.46 \text{ lbs OC/hr}$$

$$\text{Cleanup N-746} = (6.97 \text{ lbs OC/gal}) \times (0.01 \text{ gal/hr}) = 0.07 \text{ lb OC/hr}$$

$$\text{Cleanup MEK} = (6.71 \text{ lbs OC/gal}) \times (0.02 \text{ gal/hr}) = 0.13 \text{ lb OC/hr}$$

$$2.46 \text{ lbs OC/hr} + 2.79 \text{ lbs OC/hr} + 0.07 \text{ lb OC/hr} + 0.13 \text{ lb OC/hr} = 5.45 \text{ lbs OC/hr}$$

If required, the permittee shall demonstrate compliance with the hourly allowable OC emission limitation above in accordance with 40 CFR Part 60 Appendix A, Methods 1 through 4 and 18, 25, or 25A, as appropriate.

- b. Emission Limitation: 2.15 tons OC/year from coating and cleanup operations

Applicable Compliance Method: Compliance with the annual emission limitation shall be based upon the recordkeeping requirements specified in C.2.

- c. Emission Limitation: 0.51 lb NO_x/hr; 2.23 tons NO_x/year from RTO combustion emissions for K001-K006 combined

Applicable Compliance Method: Compliance with the hourly emissions limitation shall be determined by multiplying a maximum heat input of 5.2 mmBTU/hr by

the emission factor in AP-42, Chapter 1.4 (revised 7/98) of 100 lbs NO_x/million scf of natural gas, and dividing by 1020 mmBtu/ mm cu. ft. of natural gas.

If required, compliance with the NO_x limitation above shall be determined in accordance with the test methods and procedures specified in 40 CFR, Part 60, Appendix A, Methods 1 - 4 and 7.

The annual NO_x emission limitation was established by multiplying the hourly limitation by 8760 hours/year, and then dividing by 2000 pounds/ton. Therefore, provided compliance is demonstrated with the hourly emission limitation, compliance with the annual limitation shall also be demonstrated.

- d. Emission Limitation: 0.43 lb CO/hr; 1.88 tons CO/year from RTO combustion emissions for K001-K006 combined

Applicable Compliance Method: Compliance with the hourly emissions limitation shall be determined by multiplying a maximum heat input of 5.2 mmBTU/hr by the emission factor in AP-42, Chapter 1.4 (revised 7/98) of 84 lbs CO/million scf of natural gas, and dividing by 1020 mmBtu/ mm cu. ft. of natural gas.

If required, compliance with the CO limitation above shall be determined in accordance with the test methods and procedures specified in 40 CFR, Part 60, Appendix A, Methods 1 - 4 and 10.

The annual CO emission limitation was established by multiplying the hourly limitation by 8760 hours/year, and then dividing by 2000 pounds/ton. Therefore, provided compliance is demonstrated with the hourly emission limitation, compliance with the annual limitation shall also be demonstrated.

- e. Emission Limitation: 8.75 tons per rolling, 12- month period for any individual Hazardous Air Pollutant (HAP) and 23.0 tons per rolling, 12-month period for any combination of HAPs for emissions unit K001-K008 and P001 combined

Applicable Compliance Method: Compliance shall be based upon the record keeping requirements in section C.3.

- f. Emission Limitation:
0.41 lb PM₁₀/hour

Applicable Compliance Method:

To determine the actual worst case PM₁₀ rate (E), the following equation shall be used:

E = PM10 rate (lbs/hr)

E = maximum coating solids usage rate for emission units K001 - K006 combined, in pounds per hour (1-TE) x (1-CE) plus RTO combustion emissions.

TE = transfer efficiency, which is the ratio of the amount of coating solids deposited on the coated part to the amount of coating solids used (assumed to be 70%)

CE = control efficiency of the control equipment (established at 95%)

RTO combustion emissions = 5.2 mmBTU/hr times the emission factor in AP-42, Chapter 1.4 (revised 7/98) of 7.6 lbs PM10/million scf of natural gas, and dividing by 1020 mmBTU/ mm cu. ft. of natural gas.

If required, testing shall be conducted in accordance with Methods 201 and 202, 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the appropriate Ohio EPA district office or local field office.

g. Emission Limitation:

Visible particulate emissions shall not exceed 5 percent opacity, as a six-minute average

Applicable Compliance Method:

If required, compliance shall be determined according to test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

F. Miscellaneous Requirements

None

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

- The specific operations(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 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>
K003 - Line 30, consisting of 3 spray booth/infrared oven combos, 3 spray booths, and 3 infrared ovens and a regenerative thermal oxidizer (modification to multiple previously issued PTI's to re-permit this coating operation as a line)	OAC rule 3745-31-05 (A)(3)	<p>1.35 lbs organic compounds (OC)/hour; 5.91 tons OC/year from coating and cleanup operations</p> <p>Control requirements (See A.2.a)</p> <p>Emissions from Regenerative Thermal Oxidizer (RTO):</p> <p>0.51 lb nitrogen oxide (NOx)/hour; 2.23 tons NOx/year from K001-K006 combined</p> <p>0.43 lb carbon monoxide (CO)/hour; 1.88 tons CO/year from K001-K006 combined</p> <p>0.41 lb particulate matter 10 microns or less in size (PM10)/hour (See A.2.i)</p> <p>Visible particulate emissions shall not exceed 5% opacity, as a 6-minute average.</p> <p>See A.2.b</p>
	OAC rule 3745-31-05 (C)	8.75 tons per rolling, 12- month period for any individual Hazardous Air Pollutant (HAP)

	and 23.0 tons per rolling, 12-month period for any combination of HAPs for emissions unit K001-K008 and P001 combined (See A.2.c)
OAC rule 3745-21-07 (G)(2)	See A.2.d
OAC rule 3745-21-08(B)	See A.2.e
OAC rule 3745-17-07(A)	See A.2.g
OAC rule 3745-17-11(B)	See A.2.h

2. Additional Terms and Conditions

- 2.a** Best available technology (BAT) control requirements for this emissions unit has been determined to be use of a carbon bed-type concentrator and regenerative thermal oxidizer for OC and HAP control with an overall control efficiency of 90.97% (100% capture).
- 2.b** The requirements of this rule include compliance with the requirements of OAC rule 3745-31-05 (C).
- 2.c** This permit establishes federally enforceable limitations on emissions of hazardous air pollutants (HAPs) for purposes of avoiding Maximum Achievable Control Technology (MACT) regulations and Title V permitting requirements.

Annual HAP emissions from emissions unit K001-K008 and P001 combined shall not exceed 8.75 tons per year for any individual HAP and 23.0 tons per year for any combination of HAPs, based on a rolling, 12 - month summation of the monthly HAP emissions.

To ensure federal enforceability during the first 12 calendar months of operation under the provisions of this permit, the permittee shall not exceed the HAP emission rates specified in the following table for K001-K008 and P001 combined:

Maximum Allowable Cumulative HAP Emission Rates (tons):

<u>Month(s)</u>	<u>Individual HAP</u>	<u>Combined HAPs</u>
1-1	0.73	1.92
1-2	1.46	3.84

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1-3	2.19	5.76
1-4	2.92	7.68
1-5	3.65	9.60
1-6	4.38	11.52
1-7	5.11	13.44
1-8	5.84	15.36
1-9	6.57	17.28
1-10	7.30	19.20
1-11	8.03	21.12
1-12	8.75	23.00

After the first 12 calendar months of operation under the provisions of this permit, compliance with the annual HAP limitations shall be based upon a rolling, 12-month summation of the monthly HAP emission rates.

- 2.d** The emission limitation specified in this rule is less stringent than the emissions limitation established pursuant to OAC rule 3745-31-05 (A) (3).
- 2.e** The permittee has satisfied 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 requirements established pursuant to OAC rule 3745-31-05(A)(3) in this permit to install.

On November 5, 2002, OAC rule 3745-21-08 was received was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions 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.

- 2.f** The hourly emission limitation represents the potential to emit for this emissions unit. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure compliance with this emission limitation.
- 2.g** The visible emission limitation specified by this rule is less stringent than the visible emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).

- 2.h** The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).
- 2.i** All particulate matter emissions are PM10. The emission limitation of 0.41 lb PM10/hour includes emissions from coating operations from emission units K001 - K006 and combustion emissions from the RTO controlling these emissions units.

B. Operational Restrictions

- 1. The permittee shall operate the dry filtration system for the control of particulate matter whenever this emissions unit is in operation.

C. Monitoring and/or Recordkeeping Requirements

- 1. The permittee shall properly install, operate, and maintain equipment to continuously monitor and record the combustion temperature within the thermal oxidizer during operation of this emissions unit. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the combustion temperature within the thermal oxidizer on a continuous basis.

Whenever the monitored value for the combustion temperature deviates from the value specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable value specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the combustion temperature within the thermal oxidizer immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The average combustion temperature within the thermal incinerator, for any 3-hour block of time when the emissions unit is in operation, 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.

This value is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency.

2. The permittee shall collect and record the following information each month for K001:
 - a. the company identification for each coating and cleanup material employed;
 - b. the number of gallons of each coating and cleanup material employed;
 - c. the organic compound content, in pounds per gallon, as applied of each coating and cleanup material employed;
 - d. the total controlled organic emission rate for all coating and cleanup materials, in lbs/month (the controlled organic emission rate shall be calculated using the information in b and c above and the overall control efficiency from the most recent performance test that demonstrated that the emissions unit was in compliance); and
 - e. the annual year-to-date organic compound emissions from all coating and cleanup materials (sum of d for each month to date from January to December).

The company may calculate OC emissions from cleanup operations in accordance with the following formula if waste cleanup materials are sent off-site for reclamation/disposal:

OC emissions from cleanup operations = (total gallons of cleanup material used x solvent density of cleanup material) - (total gallons cleanup material sent off-site for disposal or reclamation [minus solids content of said material]) x solvent density.

3. The permittee shall collect and record the following HAP information each month for emission unit K001-K008 and P001 combined:
 - a. the company identification of each HAP containing material;
 - b. the amount of each individual HAP in each HAP containing material in lbs/gallon, as applied and/or by % weight;
 - c. the number of gallons and/or pounds of each HAP containing material employed;
 - d. the total controlled emission rate for each individual HAP from each HAP containing material employed in emissions unit K001 - K006 and the emission rate for each individual HAP from each HAP containing material employed K007, K008, and P001, for each individual HAP, in lbs/month;

- e. the total emission rate for each individual HAP from all HAP containing materials employed (summation of C.3.d for each individual HAP), in lbs/month;
 - f. the total HAP emission rate for all HAPs combined from all HAP containing materials employed (summation of C.3.e for all HAPs), in lbs/month;
 - g. for the first 12 months of operation, under the provisions of this permit, the cumulative monthly emission rate of each individual HAP and all HAPs combined, in tons per month; and
 - h. after the first 12 months of operation, under the provisions of this permit, the annual emissions of each individual HAP and all HAPs combined, based upon a rolling 12-month summation of monthly emissions.
4. The Permit to Install for this emissions units K001-K006 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 Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutants:

Pollutant: Hexane

TLV (mg/m3): 176

Maximum Hourly Emission Rate (lbs/hr): 5.76

Predicted 1-Hour Maximum Ground-Level Concentration (mg/m3): 31.22

MAGLC (mg/m3): 4190

5. 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 "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.

- 6. 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
- 7. The permittee shall maintain daily records that document any time periods when the dry filtration system for control of particulate matter was not in service when the emissions unit was in operation.
- 8. The permit to install for this emissions unit was evaluated based on information contained in the permit to install application. Prior to any physical change or change in the method of operation involving this emissions unit, the permittee shall conduct an evaluation to determine if the change would constitute a "modification" as defined in OAC rule 3745-31-01. If any physical change in, or change(s) in the method of operation is (are) defined as a modification, then the permittee shall obtain a final permit to install modification prior to performing such change. The permittee shall collect, record and retain all evaluation information and the final determination when modification evaluations are performed.

D. Reporting Requirements

1. The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:
 - a. all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent performance test that demonstrated the emissions unit was in compliance.
 - b. an identification of each incident of deviation described in (a) where a prompt investigation was not conducted;
 - c. an identification of each incident of deviation described in (a) where prompt corrective action, that would bring the combustion temperature into compliance with the acceptable range, was determined to be necessary and was not taken; and
 - d. an identification of each incident of deviation described in (a) where proper records were not maintained for the investigation and/or the corrective action.

These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

2. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. Beginning the first month after the first 12 calendar months of operation under the provisions of this permit, all exceedances of the rolling, 12-month individual HAP and combined HAPs emission limitations of 8.75 tons and 23.00 tons, respectively (for emissions units K001 - K008 and P001 combined).
 - b. for the first 12 calendar months of operation under the provisions of this permit, all exceedances of the maximum allowable cumulative individual HAP and combined HAPs emission limitations specified in section A.2.c (for emissions units K001 - K008 and P001 combined).

These reports shall be submitted in accordance with the general terms and conditions of this permit.

3. The permittee shall submit annual reports that summarize the total annual actual OC emissions from coating and cleanup operations for emissions units K001. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

4. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any daily record showing that the dry filtration system was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days after the event occurs.

E. Testing Requirements

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

- a. Emission Limitation: 1.35 lbs OC/hr, from coating and cleanup operations

Applicable Compliance Method:

The hourly allowable OC emission limitation above represents the potential to emit for this emission unit and was established by applying an overall control efficiency of 90.97% to a maximum uncontrolled emission rate of 14.91 lbs OC/hr. The maximum uncontrolled emission rate was established by adding the maximum emissions from two coatings and two cleanup materials applied in the operation and. Maximum uncontrolled coating and cleanup emissions were calculated as follows:

$$\text{Coating 1545B} = (6.00 \text{ lbs OC/gal}) \times (1.08 \text{ gal/hr}) = 6.48 \text{ lbs OC/hr}$$

$$\text{Coating 378} = (5.31 \text{ lbs OC/gal}) \times (1.55 \text{ gal/hr}) = 8.23 \text{ lbs OC/hr}$$

$$\text{Cleanup N-746} = (6.97 \text{ lbs OC/gal}) \times (0.01 \text{ gal/hr}) = 0.07 \text{ lb OC/hr}$$

$$\text{Cleanup MEK} = (6.71 \text{ lbs OC/gal}) \times (0.02 \text{ gal/hr}) = 0.13 \text{ lb OC/hr}$$

$$6.48 \text{ lbs OC/hr} + 8.23 \text{ lbs OC/hr} + 0.07 \text{ lb OC/hr} + 0.13 \text{ lb OC/hr} = 14.91 \text{ lbs OC/hr}$$

If required, the permittee shall demonstrate compliance with the hourly allowable OC emission limitation above in accordance with 40 CFR Part 60 Appendix A, Methods 1 through 4 and 18, 25, or 25A, as appropriate.

- b. Emission Limitation: 5.91 tons OC/year from coating and cleanup operations

Applicable Compliance Method: Compliance with the annual emission limitation shall be based upon the recordkeeping requirements specified in C.2.

- c. Emission Limitation: 0.51 lb NO_x/hr; 2.23 tons NO_x/year from RTO combustion emissions for K001-K006 combined

Applicable Compliance Method: Compliance with the hourly emissions limitation shall be determined by multiplying a maximum heat input of 5.2 mmBTU/hr by the emission factor in AP-42, Chapter 1.4 (revised 7/98) of 100 lbs NOx/million scf of natural gas, and dividing by 1020 mmBtu/ mm cu. ft. of natural gas.

If required, compliance with the NOx limitation above shall be determined in accordance with the test methods and procedures specified in 40 CFR, Part 60, Appendix A, Methods 1 - 4 and 7.

The annual NOx emission limitation was established by multiplying the hourly limitation by 8760 hours/year, and then dividing by 2000 pounds/ton. Therefore, provided compliance is demonstrated with the hourly emission limitation, compliance with the annual limitation shall also be demonstrated.

- d. Emission Limitation: 0.43 lb CO/hr; 1.88 tons CO/year from RTO combustion emissions for K001-K006 combined

Applicable Compliance Method: Compliance with the hourly emissions limitation shall be determined by multiplying a maximum heat input of 5.2 mmBTU/hr by the emission factor in AP-42, Chapter 1.4 (revised 7/98) of 84 lbs CO/million scf of natural gas, and dividing by 1020 mmBtu/ mm cu. ft. of natural gas.

If required, compliance with the CO limitation above shall be determined in accordance with the test methods and procedures specified in 40 CFR, Part 60, Appendix A, Methods 1 - 4 and 10.

The annual CO emission limitation was established by multiplying the hourly limitation by 8760 hours/year, and then dividing by 2000 pounds/ton. Therefore, provided compliance is demonstrated with the hourly emission limitation, compliance with the annual limitation shall also be demonstrated.

- e. Emission Limitation: 8.75 tons per rolling, 12- month period for any individual Hazardous Air Pollutant (HAP) and 23.0 tons per rolling, 12-month period for any combination of HAPs for emissions unit K001-K008 and P001 combined

Applicable Compliance Method: Compliance shall be based upon the record keeping requirements in section C.3.

- f. Emission Limitation:
0.41 lb PM10/hour

Applicable Compliance Method:

To determine the actual worst case PM10 rate (E), the following equation shall be used:

$E = \text{PM10 rate (lbs/hr)}$

E = maximum coating solids usage rate for emission units K001 - K006 combined, in pounds per hour (1-TE) x (1-CE) plus RTO combustion emissions.

TE = transfer efficiency, which is the ratio of the amount of coating solids deposited on the coated part to the amount of coating solids used (assumed to be 70%)

CE = control efficiency of the control equipment (established at 95%)

RTO combustion emissions = 5.2 mmBTU/hr times the emission factor in AP-42, Chapter 1.4 (revised 7/98) of 7.6 lbs PM10/million scf of natural gas, and dividing by 1020 mmBTU/ mm cu. ft. of natural gas.

If required, testing shall be conducted in accordance with Methods 201 and 202, 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the appropriate Ohio EPA district office or local field office.

g. Emission Limitation:

Visible particulate emissions shall not exceed 5 percent opacity, as a six-minute average

Applicable Compliance Method:

If required, compliance shall be determined according to test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

F. Miscellaneous Requirements

None

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 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>
K004 - Line 40, consisting of 4 spray booth/infrared oven combos, 5 spray booths, and 3 infrared ovens and a regenerative thermal oxidizer (modification to multiple previously issued PTI's to re-permit this coating operation as a line)	OAC rule 3745-31-05 (A)(3)	<p>2.41 lbs organic compounds (OC)/hour; 10.56 tons OC/year from coating and cleanup operations</p> <p>Control requirements (See A.2.a)</p> <p>Emissions from Regenerative Thermal Oxidizer (RTO):</p> <p>0.51 lb nitrogen oxide (NOx)/hour; 2.23 tons NOx/year from K001-K006 combined</p> <p>0.43 lb carbon monoxide (CO)/hour; 1.88 tons CO/year from K001-K006 combined</p> <p>0.41 lb particulate matter 10 microns or less in size (PM10)/hour (See A.2.i)</p> <p>Visible particulate emissions shall not exceed 5% opacity, as a 6-minute average.</p> <p>See A.2.b</p>
	OAC rule 3745-31-05 (C)	8.75 tons per rolling, 12- month period for any individual Hazardous Air Pollutant (HAP)

	and 23.0 tons per rolling, 12-month period for any combination of HAPs for emissions unit K001-K008 and P001 combined (See A.2.c)
OAC rule 3745-21-07 (G)(2)	See A.2.d
OAC rule 3745-21-08(B)	See A.2.e
OAC rule 3745-17-07(A)	See A.2.g
OAC rule 3745-17-11(B)	See A.2.h

2. Additional Terms and Conditions

- 2.a** Best available technology (BAT) control requirements for this emissions unit has been determined to be use of a carbon bed-type concentrator and regenerative thermal oxidizer for OC and HAP control with an overall control efficiency of 90.97% (100% capture).
- 2.b** The requirements of this rule include compliance with the requirements of OAC rule 3745-31-05 (C).
- 2.c** This permit establishes federally enforceable limitations on emissions of hazardous air pollutants (HAPs) for purposes of avoiding Maximum Achievable Control Technology (MACT) regulations and Title V permitting requirements.

Annual HAP emissions from emissions unit K001-K008 and P001 combined shall not exceed 8.75 tons per year for any individual HAP and 23.0 tons per year for any combination of HAPs, based on a rolling, 12 - month summation of the monthly HAP emissions.

To ensure federal enforceability during the first 12 calendar months of operation under the provisions of this permit, the permittee shall not exceed the HAP emission rates specified in the following table for K001-K008 and P001 combined:

Maximum Allowable Cumulative HAP Emission Rates (tons):

<u>Month(s)</u>	<u>Individual HAP</u>	<u>Combined HAPs</u>
1-1	0.73	1.92
1-2	1.46	3.84

M-TEK, Inc.

PTI Application: 03-17006

Issued: To be entered upon final issuance

Facility ID: 0388010052

Emissions Unit ID: K004

1-3	2.19	5.76
1-4	2.92	7.68
1-5	3.65	9.60
1-6	4.38	11.52
1-7	5.11	13.44
1-8	5.84	15.36
1-9	6.57	17.28
1-10	7.30	19.20
1-11	8.03	21.12
1-12	8.75	23.00

After the first 12 calendar months of operation under the provisions of this permit, compliance with the annual HAP limitations shall be based upon a rolling, 12-month summation of the monthly HAP emission rates.

- 2.d** The emission limitation specified in this rule is less stringent than the emissions limitation established pursuant to OAC rule 3745-31-05 (A) (3).
- 2.e** The permittee has satisfied 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 requirements established pursuant to OAC rule 3745-31-05(A)(3) in this permit to install.

On November 5, 2002, OAC rule 3745-21-08 was received was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions 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.

- 2.f** The hourly emission limitation represents the potential to emit for this emissions unit. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure compliance with this emission limitation.
- 2.g** The visible emission limitation specified by this rule is less stringent than the visible emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).

- 2.h** The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).
- 2.i** All particulate matter emissions are PM10. The emission limitation of 0.41 lb PM10/hour includes emissions from coating operations from emission units K001 - K006 and combustion emissions from the RTO controlling these emissions units.

B. Operational Restrictions

- 1. The permittee shall operate the dry filtration system for the control of particulate matter whenever this emissions unit is in operation.

C. Monitoring and/or Recordkeeping Requirements

- 1. The permittee shall properly install, operate, and maintain equipment to continuously monitor and record the combustion temperature within the thermal oxidizer during operation of this emissions unit. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the combustion temperature within the thermal oxidizer on a continuous basis.

Whenever the monitored value for the combustion temperature deviates from the value specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable value specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the combustion temperature within the thermal oxidizer immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The average combustion temperature within the thermal incinerator, for any 3-hour block of time when the emissions unit is in operation, 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.

This value is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency.

2. The permittee shall collect and record the following information each month for K001:
 - a. the company identification for each coating and cleanup material employed;
 - b. the number of gallons of each coating and cleanup material employed;
 - c. the organic compound content, in pounds per gallon, as applied of each coating and cleanup material employed;
 - d. the total controlled organic emission rate for all coating and cleanup materials, in lbs/month (the controlled organic emission rate shall be calculated using the information in b and c above and the overall control efficiency from the most recent performance test that demonstrated that the emissions unit was in compliance); and
 - e. the annual year-to-date organic compound emissions from all coating and cleanup materials (sum of d for each month to date from January to December).

The company may calculate OC emissions from cleanup operations in accordance with the following formula if waste cleanup materials are sent off-site for reclamation/disposal:

OC emissions from cleanup operations = (total gallons of cleanup material used x solvent density of cleanup material) - (total gallons cleanup material sent off-site for disposal or reclamation [minus solids content of said material]) x solvent density.

3. The permittee shall collect and record the following HAP information each month for emission unit K001-K008 and P001 combined:
 - a. the company identification of each HAP containing material;
 - b. the amount of each individual HAP in each HAP containing material in lbs/gallon, as applied and/or by % weight;
 - c. the number of gallons and/or pounds of each HAP containing material employed;
 - d. the total controlled emission rate for each individual HAP from each HAP containing material employed in emissions unit K001 - K006 and the emission rate for each individual HAP from each HAP containing material employed K007, K008, and P001, for each individual HAP, in lbs/month;

- e. the total emission rate for each individual HAP from all HAP containing materials employed (summation of C.3.d for each individual HAP), in lbs/month;
 - f. the total HAP emission rate for all HAPs combined from all HAP containing materials employed (summation of C.3.e for all HAPs), in lbs/month;
 - g. for the first 12 months of operation, under the provisions of this permit, the cumulative monthly emission rate of each individual HAP and all HAPs combined, in tons per month; and
 - h. after the first 12 months of operation, under the provisions of this permit, the annual emissions of each individual HAP and all HAPs combined, based upon a rolling 12-month summation of monthly emissions.
4. The Permit to Install for this emissions units K001-K006 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 Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutants:

Pollutant: Hexane

TLV (mg/m3): 176

Maximum Hourly Emission Rate (lbs/hr): 5.76

Predicted 1-Hour Maximum Ground-Level Concentration (mg/m3): 31.22

MAGLC (mg/m3): 4190

5. 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 "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.

- 6. 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
- 7. The permittee shall maintain daily records that document any time periods when the dry filtration system for control of particulate matter was not in service when the emissions unit was in operation.
- 8. The permit to install for this emissions unit was evaluated based on information contained in the permit to install application. Prior to any physical change or change in the method of operation involving this emissions unit, the permittee shall conduct an evaluation to determine if the change would constitute a "modification" as defined in OAC rule 3745-31-01. If any physical change in, or change(s) in the method of operation is (are) defined as a modification, then the permittee shall obtain a final permit to install modification prior to performing such change. The permittee shall collect, record and retain all evaluation information and the final determination when modification evaluations are performed.

D. Reporting Requirements

1. The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:
 - a. all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent performance test that demonstrated the emissions unit was in compliance.
 - b. an identification of each incident of deviation described in (a) where a prompt investigation was not conducted;
 - c. an identification of each incident of deviation described in (a) where prompt corrective action, that would bring the combustion temperature into compliance with the acceptable range, was determined to be necessary and was not taken; and
 - d. an identification of each incident of deviation described in (a) where proper records were not maintained for the investigation and/or the corrective action.

These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

2. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. Beginning the first month after the first 12 calendar months of operation under the provisions of this permit, all exceedances of the rolling, 12-month individual HAP and combined HAPs emission limitations of 8.75 tons and 23.00 tons, respectively (for emissions units K001 - K008 and P001 combined).
 - b. for the first 12 calendar months of operation under the provisions of this permit, all exceedances of the maximum allowable cumulative individual HAP and combined HAPs emission limitations specified in section A.2.c (for emissions units K001 - K008 and P001 combined).

These reports shall be submitted in accordance with the general terms and conditions of this permit.

3. The permittee shall submit annual reports that summarize the total annual actual OC emissions from coating and cleanup operations for emissions units K001. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

4. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any daily record showing that the dry filtration system was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days after the event occurs.

E. Testing Requirements

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

- a. Emission Limitation: 2.41 lbs OC/hr, from coating and cleanup operations

Applicable Compliance Method:

The hourly allowable OC emission limitation above represents the potential to emit for this emission unit and was established by applying an overall control efficiency of 90.97% to a maximum uncontrolled emission rate of 26.72 lbs OC/hr. The maximum uncontrolled emission rate was established by adding the maximum emissions from two coatings and two cleanup materials applied in the operation and. Maximum uncontrolled coating and cleanup emissions were calculated as follows:

$$\text{Coating 1545B} = (6.00 \text{ lbs OC/gal}) \times (0.27 \text{ gal/hr}) = 1.62 \text{ lbs OC/hr}$$

$$\text{Coating 378} = (5.31 \text{ lbs OC/gal}) \times (4.69 \text{ gal/hr}) = 24.90 \text{ lbs OC/hr}$$

$$\text{Cleanup N-746} = (6.97 \text{ lbs OC/gal}) \times (0.01 \text{ gal/hr}) = 0.07 \text{ lb OC/hr}$$

$$\text{Cleanup MEK} = (6.71 \text{ lbs OC/gal}) \times (0.02 \text{ gal/hr}) = 0.13 \text{ lb OC/hr}$$

$$1.62 \text{ lbs OC/hr} + 24.90 \text{ lbs OC/hr} + 0.07 \text{ lb OC/hr} + 0.13 \text{ lb OC/hr} = 26.72 \text{ lbs OC/hr}$$

If required, the permittee shall demonstrate compliance with the hourly allowable OC emission limitation above in accordance with 40 CFR Part 60 Appendix A, Methods 1 through 4 and 18, 25, or 25A, as appropriate.

- b. Emission Limitation: 10.56 tons OC/year from coating and cleanup operations

Applicable Compliance Method: Compliance with the annual emission limitation shall be based upon the recordkeeping requirements specified in C.2.

- c. Emission Limitation: 0.51 lb NO_x/hr; 2.23 tons NO_x/year from RTO combustion emissions for K001-K006 combined

Applicable Compliance Method: Compliance with the hourly emissions limitation shall be determined by multiplying a maximum heat input of 5.2 mmBTU/hr by the emission factor in AP-42, Chapter 1.4 (revised 7/98) of 100 lbs NO_x/million scf of natural gas, and dividing by 1020 mmBtu/ mm cu. ft. of natural gas.

If required, compliance with the NO_x limitation above shall be determined in accordance with the test methods and procedures specified in 40 CFR, Part 60, Appendix A, Methods 1 - 4 and 7.

The annual NO_x emission limitation was established by multiplying the hourly limitation by 8760 hours/year, and then dividing by 2000 pounds/ton. Therefore, provided compliance is demonstrated with the hourly emission limitation, compliance with the annual limitation shall also be demonstrated.

- d. Emission Limitation: 0.43 lb CO/hr; 1.88 tons CO/year from RTO combustion emissions for K001-K006 combined

Applicable Compliance Method: Compliance with the hourly emissions limitation shall be determined by multiplying a maximum heat input of 5.2 mmBTU/hr by the emission factor in AP-42, Chapter 1.4 (revised 7/98) of 84 lbs CO/million scf of natural gas, and dividing by 1020 mmBtu/ mm cu. ft. of natural gas.

If required, compliance with the CO limitation above shall be determined in accordance with the test methods and procedures specified in 40 CFR, Part 60, Appendix A, Methods 1 - 4 and 10.

The annual CO emission limitation was established by multiplying the hourly limitation by 8760 hours/year, and then dividing by 2000 pounds/ton. Therefore, provided compliance is demonstrated with the hourly emission limitation, compliance with the annual limitation shall also be demonstrated.

- e. Emission Limitation: 8.75 tons per rolling, 12- month period for any individual Hazardous Air Pollutant (HAP) and 23.0 tons per rolling, 12-month period for any combination of HAPs for emissions unit K001-K008 and P001 combined

Applicable Compliance Method: Compliance shall be based upon the record keeping requirements in section C.3.

- f. Emission Limitation:
0.41 lb PM₁₀/hour

Applicable Compliance Method:

To determine the actual worst case PM10 rate (E), the following equation shall be used:

$$E = \text{PM10 rate (lbs/hr)}$$

E = maximum coating solids usage rate for emission units K001 - K006 combined, in pounds per hour (1-TE) x (1-CE) plus RTO combustion emissions.

TE = transfer efficiency, which is the ratio of the amount of coating solids deposited on the coated part to the amount of coating solids used (assumed to be 70%)

CE = control efficiency of the control equipment (established at 95%)

RTO combustion emissions = 5.2 mmBTU/hr times the emission factor in AP-42, Chapter 1.4 (revised 7/98) of 7.6 lbs PM10/million scf of natural gas, and dividing by 1020 mmBTU/ mm cu. ft. of natural gas.

If required, testing shall be conducted in accordance with Methods 201 and 202, 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the appropriate Ohio EPA district office or local field office.

g. Emission Limitation:

Visible particulate emissions shall not exceed 5 percent opacity, as a six-minute average

Applicable Compliance Method:

If required, compliance shall be determined according to test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

F. Miscellaneous Requirements

None

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

- The specific operations(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 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>
K005 - Line 60, consisting of 2 spray booth/infrared oven combos and a regenerative thermal oxidizer (modification to multiple previously issued PTI's to re-permit this coating operation as a line)	OAC rule 3745-31-05 (A)(3)	0.24 lb organic compounds (OC)/hour; 1.05 tons OC/year from coating and cleanup operations Control requirements (See A.2.a) Emissions from Regenerative Thermal Oxidizer (RTO): 0.51 lb nitrogen oxide (NOx)/hour; 2.23 tons NOx/year from K001-K006 combined 0.43 lb carbon monoxide (CO)/hour; 1.88 tons CO/year from K001-K006 combined 0.41 lb particulate matter 10 microns or less in size (PM10)/hour (See A.2.i) Visible particulate emissions shall not exceed 5% opacity, as a 6-minute average. See A.2.b
	OAC rule 3745-31-05 (C)	8.75 tons per rolling, 12- month period for any individual Hazardous Air Pollutant (HAP)

	and 23.0 tons per rolling, 12-month period for any combination of HAPs for emissions unit K001-K008 and P001 combined (See A.2.c)
OAC rule 3745-21-07 (G)(2)	See A.2.d
OAC rule 3745-21-08(B)	See A.2.e
OAC rule 3745-17-07(A)	See A.2.g
OAC rule 3745-17-11(B)	See A.2.h

2. Additional Terms and Conditions

- 2.a** Best available technology (BAT) control requirements for this emissions unit has been determined to be use of a carbon bed-type concentrator and regenerative thermal oxidizer for OC and HAP control with an overall control efficiency of 90.97% (100% capture).
- 2.b** The requirements of this rule include compliance with the requirements of OAC rule 3745-31-05 (C).
- 2.c** This permit establishes federally enforceable limitations on emissions of hazardous air pollutants (HAPs) for purposes of avoiding Maximum Achievable Control Technology (MACT) regulations and Title V permitting requirements.

Annual HAP emissions from emissions unit K001-K008 and P001 combined shall not exceed 8.75 tons per year for any individual HAP and 23.0 tons per year for any combination of HAPs, based on a rolling, 12 - month summation of the monthly HAP emissions.

To ensure federal enforceability during the first 12 calendar months of operation under the provisions of this permit, the permittee shall not exceed the HAP emission rates specified in the following table for K001-K008 and P001 combined:

Maximum Allowable Cumulative HAP Emission Rates (tons):

<u>Month(s)</u>	<u>Individual HAP</u>	<u>Combined HAPs</u>
1-1	0.73	1.92
1-2	1.46	3.84

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1-3	2.19	5.76
1-4	2.92	7.68
1-5	3.65	9.60
1-6	4.38	11.52
1-7	5.11	13.44
1-8	5.84	15.36
1-9	6.57	17.28
1-10	7.30	19.20
1-11	8.03	21.12
1-12	8.75	23.00

After the first 12 calendar months of operation under the provisions of this permit, compliance with the annual HAP limitations shall be based upon a rolling, 12-month summation of the monthly HAP emission rates.

- 2.d** The emission limitation specified in this rule is less stringent than the emissions limitation established pursuant to OAC rule 3745-31-05 (A) (3).
- 2.e** The permittee has satisfied 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 requirements established pursuant to OAC rule 3745-31-05(A)(3) in this permit to install.

On November 5, 2002, OAC rule 3745-21-08 was received was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions 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.

- 2.f** The hourly emission limitation represents the potential to emit for this emissions unit. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure compliance with this emission limitation.
- 2.g** The visible emission limitation specified by this rule is less stringent than the visible emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).

- 2.h** The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).
- 2.i** All particulate matter emissions are PM10. The emission limitation of 0.41 lb PM10/hour includes emissions from coating operations from emission units K001 - K006 and combustion emissions from the RTO controlling these emissions units.

B. Operational Restrictions

- 1. The permittee shall operate the dry filtration system for the control of particulate matter whenever this emissions unit is in operation.

C. Monitoring and/or Recordkeeping Requirements

- 1. The permittee shall properly install, operate, and maintain equipment to continuously monitor and record the combustion temperature within the thermal oxidizer during operation of this emissions unit. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the combustion temperature within the thermal oxidizer on a continuous basis.

Whenever the monitored value for the combustion temperature deviates from the value specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable value specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the combustion temperature within the thermal oxidizer immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The average combustion temperature within the thermal incinerator, for any 3-hour block of time when the emissions unit is in operation, 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.

This value is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency.

2. The permittee shall collect and record the following information each month for K001:
 - a. the company identification for each coating and cleanup material employed;
 - b. the number of gallons of each coating and cleanup material employed;
 - c. the organic compound content, in pounds per gallon, as applied of each coating and cleanup material employed;
 - d. the total controlled organic emission rate for all coating and cleanup materials, in lbs/month (the controlled organic emission rate shall be calculated using the information in b and c above and the overall control efficiency from the most recent performance test that demonstrated that the emissions unit was in compliance); and
 - e. the annual year-to-date organic compound emissions from all coating and cleanup materials (sum of d for each month to date from January to December).

The company may calculate OC emissions from cleanup operations in accordance with the following formula if waste cleanup materials are sent off-site for reclamation/disposal:

OC emissions from cleanup operations = (total gallons of cleanup material used x solvent density of cleanup material) - (total gallons cleanup material sent off-site for disposal or reclamation [minus solids content of said material]) x solvent density.

3. The permittee shall collect and record the following HAP information each month for emission unit K001-K008 and P001 combined:
 - a. the company identification of each HAP containing material;
 - b. the amount of each individual HAP in each HAP containing material in lbs/gallon, as applied and/or by % weight;
 - c. the number of gallons and/or pounds of each HAP containing material employed;
 - d. the total controlled emission rate for each individual HAP from each HAP containing material employed in emissions unit K001 - K006 and the emission rate for each individual HAP from each HAP containing material employed K007, K008, and P001, for each individual HAP, in lbs/month;

- e. the total emission rate for each individual HAP from all HAP containing materials employed (summation of C.3.d for each individual HAP), in lbs/month;
 - f. the total HAP emission rate for all HAPs combined from all HAP containing materials employed (summation of C.3.e for all HAPs), in lbs/month;
 - g. for the first 12 months of operation, under the provisions of this permit, the cumulative monthly emission rate of each individual HAP and all HAPs combined, in tons per month; and
 - h. after the first 12 months of operation, under the provisions of this permit, the annual emissions of each individual HAP and all HAPs combined, based upon a rolling 12-month summation of monthly emissions.
4. The Permit to Install for this emissions units K001-K006 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 Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutants:

Pollutant: Hexane

TLV (mg/m3): 176

Maximum Hourly Emission Rate (lbs/hr): 5.76

Predicted 1-Hour Maximum Ground-Level Concentration (mg/m3): 31.22

MAGLC (mg/m3): 4190

5. 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 "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.

- 6. 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
- 7. The permittee shall maintain daily records that document any time periods when the dry filtration system for control of particulate matter was not in service when the emissions unit was in operation.
- 8. The permit to install for this emissions unit was evaluated based on information contained in the permit to install application. Prior to any physical change or change in the method of operation involving this emissions unit, the permittee shall conduct an evaluation to determine if the change would constitute a "modification" as defined in OAC rule 3745-31-01. If any physical change in, or change(s) in the method of operation is (are) defined as a modification, then the permittee shall obtain a final permit to install modification prior to performing such change. The permittee shall collect, record and retain all evaluation information and the final determination when modification evaluations are performed.

D. Reporting Requirements

1. The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:
 - a. all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent performance test that demonstrated the emissions unit was in compliance.
 - b. an identification of each incident of deviation described in (a) where a prompt investigation was not conducted;
 - c. an identification of each incident of deviation described in (a) where prompt corrective action, that would bring the combustion temperature into compliance with the acceptable range, was determined to be necessary and was not taken; and
 - d. an identification of each incident of deviation described in (a) where proper records were not maintained for the investigation and/or the corrective action.

These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

2. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. Beginning the first month after the first 12 calendar months of operation under the provisions of this permit, all exceedances of the rolling, 12-month individual HAP and combined HAPs emission limitations of 8.75 tons and 23.00 tons, respectively (for emissions units K001 - K008 and P001 combined).
 - b. for the first 12 calendar months of operation under the provisions of this permit, all exceedances of the maximum allowable cumulative individual HAP and combined HAPs emission limitations specified in section A.2.c (for emissions units K001 - K008 and P001 combined).

These reports shall be submitted in accordance with the general terms and conditions of this permit.

3. The permittee shall submit annual reports that summarize the total annual actual OC emissions from coating and cleanup operations for emissions units K001. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

4. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any daily record showing that the dry filtration system was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days after the event occurs.

E. Testing Requirements

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

- a. Emission Limitation: 0.24 lb OC/hr, from coating and cleanup operations

Applicable Compliance Method:

The hourly allowable OC emission limitation above represents the potential to emit for this emission unit and was established by applying an overall control efficiency of 90.97% to a maximum uncontrolled emission rate of 2.71 lbs OC/hr. The maximum uncontrolled emission rate was established by adding the maximum emissions from two coatings and two cleanup materials applied in the operation and. Maximum uncontrolled coating and cleanup emissions were calculated as follows:

$$\text{Coating 1545B} = (6.00 \text{ lbs OC/gal}) \times (0.34 \text{ gal/hr}) = 2.04 \text{ lbs OC/hr}$$

$$\text{Cleanup MEK} = (6.71 \text{ lbs OC/gal}) \times (0.10 \text{ gal/hr}) = 0.67 \text{ lb OC/hr}$$

$$2.04 \text{ lbs OC/hr} + 0.67 \text{ lb OC/hr} = 2.71 \text{ lbs OC/hr}$$

If required, the permittee shall demonstrate compliance with the hourly allowable OC emission limitation above in accordance with 40 CFR Part 60 Appendix A, Methods 1 through 4 and 18, 25, or 25A, as appropriate.

- b. Emission Limitation: 1.05 tons OC/year from coating and cleanup operations

Applicable Compliance Method: Compliance with the annual emission limitation shall be based upon the recordkeeping requirements specified in C.2.

- c. Emission Limitation: 0.51 lb NO_x/hr; 2.23 tons NO_x/year from RTO combustion emissions for K001-K006 combined

Applicable Compliance Method: Compliance with the hourly emissions limitation shall be determined by multiplying a maximum heat input of 5.2 mmBTU/hr by the emission factor in AP-42, Chapter 1.4 (revised 7/98) of 100 lbs NO_x/million scf of natural gas, and dividing by 1020 mmBtu/ mm cu. ft. of natural gas.

If required, compliance with the NOx limitation above shall be determined in accordance with the test methods and procedures specified in 40 CFR, Part 60, Appendix A, Methods 1 - 4 and 7.

The annual NOx emission limitation was established by multiplying the hourly limitation by 8760 hours/year, and then dividing by 2000 pounds/ton. Therefore, provided compliance is demonstrated with the hourly emission limitation, compliance with the annual limitation shall also be demonstrated.

- d. Emission Limitation: 0.43 lb CO/hr; 1.88 tons CO/year from RTO combustion emissions for K001-K006 combined

Applicable Compliance Method: Compliance with the hourly emissions limitation shall be determined by multiplying a maximum heat input of 5.2 mmBTU/hr by the emission factor in AP-42, Chapter 1.4 (revised 7/98) of 84 lbs CO/million scf of natural gas, and dividing by 1020 mmBtu/ mm cu. ft. of natural gas.

If required, compliance with the CO limitation above shall be determined in accordance with the test methods and procedures specified in 40 CFR, Part 60, Appendix A, Methods 1 - 4 and 10.

The annual CO emission limitation was established by multiplying the hourly limitation by 8760 hours/year, and then dividing by 2000 pounds/ton. Therefore, provided compliance is demonstrated with the hourly emission limitation, compliance with the annual limitation shall also be demonstrated.

- e. Emission Limitation: 8.75 tons per rolling, 12- month period for any individual Hazardous Air Pollutant (HAP) and 23.0 tons per rolling, 12-month period for any combination of HAPs for emissions unit K001-K008 and P001 combined

Applicable Compliance Method: Compliance shall be based upon the record keeping requirements in section C.3.

- f. Emission Limitation:
0.41 lb PM10/hour

Applicable Compliance Method:

To determine the actual worst case PM10 rate (E), the following equation shall be used:

$$E = \text{PM10 rate (lbs/hr)}$$

E = maximum coating solids usage rate for emission units K001 - K006 combined, in pounds per hour (1-TE) x (1-CE) plus RTO combustion emissions.

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TE = transfer efficiency, which is the ratio of the amount of coating solids deposited on the coated part to the amount of coating solids used (assumed to be 70%)

CE = control efficiency of the control equipment (established at 95%)

RTO combustion emissions = 5.2 mmBTU/hr times the emission factor in AP-42, Chapter 1.4 (revised 7/98) of 7.6 lbs PM10/million scf of natural gas, and dividing by 1020 mmBTU/ mm cu. ft. of natural gas.

If required, testing shall be conducted in accordance with Methods 201 and 202, 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the appropriate Ohio EPA district office or local field office.

- g. Emission Limitation:
Visible particulate emissions shall not exceed 5 percent opacity, as a six-minute average

Applicable Compliance Method:

If required, compliance shall be determined according to test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

F. Miscellaneous Requirements

None

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

- The specific operations(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 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>
K006 -Line 70, consisting of one spray booth, 2 spray booth/infrared oven combos, one infrared oven and regenerative thermal oxidizer (modification to multiple previously issued PTI's to re-permit this coating operation as a line)	OAC rule 3745-31-05 (A)(3)	<p>0.80 lb organic compounds (OC)/hour; 3.50 tons OC/year from coating and cleanup operations</p> <p>Control requirements (See A.2.a)</p> <p>Emissions from Regenerative Thermal Oxidizer (RTO):</p> <p>0.51 lb nitrogen oxide (NOx)/hour; 2.23 tons NOx/year from K001-K006 combined</p> <p>0.43 lb carbon monoxide (CO)/hour; 1.88 tons CO/year from K001-K006 combined</p> <p>0.41 lb particulate matter 10 microns or less in size (PM10)/hour (See A.2.i)</p> <p>Visible particulate emissions shall not exceed 5% opacity, as a 6-minute average.</p> <p>See A.2.b</p>
	OAC rule 3745-31-05 (C)	8.75 tons per rolling, 12- month period for any individual Hazardous Air Pollutant (HAP)

	and 23.0 tons per rolling, 12-month period for any combination of HAPs for emissions unit K001-K008 and P001 combined (See A.2.c)
OAC rule 3745-21-07 (G)(2)	See A.2.d
OAC rule 3745-21-08(B)	See A.2.e
OAC rule 3745-17-07(A)	See A.2.g
OAC rule 3745-17-11(B)	See A.2.h

2. Additional Terms and Conditions

- 2.a** Best available technology (BAT) control requirements for this emissions unit has been determined to be use of a carbon bed-type concentrator and regenerative thermal oxidizer for OC and HAP control with an overall control efficiency of 90.97% (100% capture).
- 2.b** The requirements of this rule include compliance with the requirements of OAC rule 3745-31-05 (C).
- 2.c** This permit establishes federally enforceable limitations on emissions of hazardous air pollutants (HAPs) for purposes of avoiding Maximum Achievable Control Technology (MACT) regulations and Title V permitting requirements.

Annual HAP emissions from emissions unit K001-K008 and P001 combined shall not exceed 8.75 tons per year for any individual HAP and 23.0 tons per year for any combination of HAPs, based on a rolling, 12 - month summation of the monthly HAP emissions.

To ensure federal enforceability during the first 12 calendar months of operation under the provisions of this permit, the permittee shall not exceed the HAP emission rates specified in the following table for K001-K008 and P001 combined:

Maximum Allowable Cumulative HAP Emission Rates (tons):

<u>Month(s)</u>	<u>Individual HAP</u>	<u>Combined HAPs</u>
1-1	0.73	1.92
1-2	1.46	3.84

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1-3	2.19	5.76
1-4	2.92	7.68
1-5	3.65	9.60
1-6	4.38	11.52
1-7	5.11	13.44
1-8	5.84	15.36
1-9	6.57	17.28
1-10	7.30	19.20
1-11	8.03	21.12
1-12	8.75	23.00

After the first 12 calendar months of operation under the provisions of this permit, compliance with the annual HAP limitations shall be based upon a rolling, 12-month summation of the monthly HAP emission rates.

- 2.d** The emission limitation specified in this rule is less stringent than the emissions limitation established pursuant to OAC rule 3745-31-05 (A) (3).
- 2.e** The permittee has satisfied 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 requirements established pursuant to OAC rule 3745-31-05(A)(3) in this permit to install.

On November 5, 2002, OAC rule 3745-21-08 was received was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions 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.

- 2.f** The hourly emission limitation represents the potential to emit for this emissions unit. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure compliance with this emission limitation.
- 2.g** The visible emission limitation specified by this rule is less stringent than the visible emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).

- 2.h** The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).
- 2.i** All particulate matter emissions are PM10. The emission limitation of 0.41 lb PM10/hour includes emissions from coating operations from emission units K001 - K006 and combustion emissions from the RTO controlling these emissions units.

B. Operational Restrictions

- 1. The permittee shall operate the dry filtration system for the control of particulate matter whenever this emissions unit is in operation.

C. Monitoring and/or Recordkeeping Requirements

- 1. The permittee shall properly install, operate, and maintain equipment to continuously monitor and record the combustion temperature within the thermal oxidizer during operation of this emissions unit. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the combustion temperature within the thermal oxidizer on a continuous basis.

Whenever the monitored value for the combustion temperature deviates from the value specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable value specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the combustion temperature within the thermal oxidizer immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The average combustion temperature within the thermal incinerator, for any 3-hour block of time when the emissions unit is in operation, 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.

This value is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency.

2. The permittee shall collect and record the following information each month for K001:
 - a. the company identification for each coating and cleanup material employed;
 - b. the number of gallons of each coating and cleanup material employed;
 - c. the organic compound content, in pounds per gallon, as applied of each coating and cleanup material employed;
 - d. the total controlled organic emission rate for all coating and cleanup materials, in lbs/month (the controlled organic emission rate shall be calculated using the information in b and c above and the overall control efficiency from the most recent performance test that demonstrated that the emissions unit was in compliance); and
 - e. the annual year-to-date organic compound emissions from all coating and cleanup materials (sum of d for each month to date from January to December).

The company may calculate OC emissions from cleanup operations in accordance with the following formula if waste cleanup materials are sent off-site for reclamation/disposal:

OC emissions from cleanup operations = (total gallons of cleanup material used x solvent density of cleanup material) - (total gallons cleanup material sent off-site for disposal or reclamation [minus solids content of said material]) x solvent density.

3. The permittee shall collect and record the following HAP information each month for emission unit K001-K008 and P001 combined:
 - a. the company identification of each HAP containing material;
 - b. the amount of each individual HAP in each HAP containing material in lbs/gallon, as applied and/or by % weight;
 - c. the number of gallons and/or pounds of each HAP containing material employed;
 - d. the total controlled emission rate for each individual HAP from each HAP containing material employed in emissions unit K001 - K006 and the emission rate for each individual HAP from each HAP containing material employed K007, K008, and P001, for each individual HAP, in lbs/month;

- e. the total emission rate for each individual HAP from all HAP containing materials employed (summation of C.3.d for each individual HAP), in lbs/month;
 - f. the total HAP emission rate for all HAPs combined from all HAP containing materials employed (summation of C.3.e for all HAPs), in lbs/month;
 - g. for the first 12 months of operation, under the provisions of this permit, the cumulative monthly emission rate of each individual HAP and all HAPs combined, in tons per month; and
 - h. after the first 12 months of operation, under the provisions of this permit, the annual emissions of each individual HAP and all HAPs combined, based upon a rolling 12-month summation of monthly emissions.
4. The Permit to Install for this emissions units K001-K006 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 Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutants:

Pollutant: Hexane

TLV (mg/m3): 176

Maximum Hourly Emission Rate (lbs/hr): 5.76

Predicted 1-Hour Maximum Ground-Level Concentration (mg/m3): 31.22

MAGLC (mg/m3): 4190

5. 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 "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.

- 6. 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
- 7. The permittee shall maintain daily records that document any time periods when the dry filtration system for control of particulate matter was not in service when the emissions unit was in operation.
- 8. The permit to install for this emissions unit was evaluated based on information contained in the permit to install application. Prior to any physical change or change in the method of operation involving this emissions unit, the permittee shall conduct an evaluation to determine if the change would constitute a "modification" as defined in OAC rule 3745-31-01. If any physical change in, or change(s) in the method of operation is (are) defined as a modification, then the permittee shall obtain a final permit to install modification prior to performing such change. The permittee shall collect, record and retain all evaluation information and the final determination when modification evaluations are performed.

D. Reporting Requirements

1. The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:
 - a. all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent performance test that demonstrated the emissions unit was in compliance.
 - b. an identification of each incident of deviation described in (a) where a prompt investigation was not conducted;
 - c. an identification of each incident of deviation described in (a) where prompt corrective action, that would bring the combustion temperature into compliance with the acceptable range, was determined to be necessary and was not taken; and
 - d. an identification of each incident of deviation described in (a) where proper records were not maintained for the investigation and/or the corrective action.

These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

2. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. Beginning the first month after the first 12 calendar months of operation under the provisions of this permit, all exceedances of the rolling, 12-month individual HAP and combined HAPs emission limitations of 8.75 tons and 23.00 tons, respectively (for emissions units K001 - K008 and P001 combined).
 - b. for the first 12 calendar months of operation under the provisions of this permit, all exceedances of the maximum allowable cumulative individual HAP and combined HAPs emission limitations specified in section A.2.c (for emissions units K001 - K008 and P001 combined).

These reports shall be submitted in accordance with the general terms and conditions of this permit.

3. The permittee shall submit annual reports that summarize the total annual actual OC emissions from coating and cleanup operations for emissions units K001. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

4. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any daily record showing that the dry filtration system was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days after the event occurs.

E. Testing Requirements

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

- a. Emission Limitation: 0.80 lbs OC/hr, from coating and cleanup operations

Applicable Compliance Method:

The hourly allowable OC emission limitation above represents the potential to emit for this emission unit and was established by applying an overall control efficiency of 90.97% to a maximum uncontrolled emission rate of 8.85 lbs OC/hr. The maximum uncontrolled emission rate was established by adding the maximum emissions from two coatings and two cleanup materials applied in the operation and. Maximum uncontrolled coating and cleanup emissions were calculated as follows:

$$\text{Coating 1545B} = (6.00 \text{ lbs OC/gal}) \times (0.29 \text{ gal/hr}) = 1.74 \text{ lbs OC/hr}$$

$$\text{Coating 378} = (5.31 \text{ lbs OC/gal}) \times (1.22 \text{ gal/hr}) = 6.48 \text{ lbs OC/hr}$$

$$\text{Cleanup N-746} = (6.97 \text{ lbs OC/gal}) \times (0.09 \text{ gal/hr}) = 0.63 \text{ lb OC/hr}$$

$$1.74 \text{ lbs OC/hr} + 6.48 \text{ lbs OC/hr} + 0.63 \text{ lb OC/hr} = 8.85 \text{ lbs OC/hr}$$

If required, the permittee shall demonstrate compliance with the hourly allowable OC emission limitation above in accordance with 40 CFR Part 60 Appendix A, Methods 1 through 4 and 18, 25, or 25A, as appropriate.

- b. Emission Limitation: 3.50 tons OC/year from coating and cleanup operations

Applicable Compliance Method: Compliance with the annual emission limitation shall be based upon the recordkeeping requirements specified in C.2.

- c. Emission Limitation: 0.51 lb NOx/hr; 2.23 tons NOx/year from RTO combustion emissions for K001-K006 combined

Applicable Compliance Method: Compliance with the hourly emissions limitation shall be determined by multiplying a maximum heat input of 5.2 mmBTU/hr by the emission factor in AP-42, Chapter 1.4 (revised 7/98) of 100 lbs NOx/million scf of natural gas, and dividing by 1020 mmBtu/ mm cu. ft. of natural gas.

If required, compliance with the NOx limitation above shall be determined in accordance with the test methods and procedures specified in 40 CFR, Part 60, Appendix A, Methods 1 - 4 and 7.

The annual NOx emission limitation was established by multiplying the hourly limitation by 8760 hours/year, and then dividing by 2000 pounds/ton. Therefore, provided compliance is demonstrated with the hourly emission limitation, compliance with the annual limitation shall also be demonstrated.

- d. Emission Limitation: 0.43 lb CO/hr; 1.88 tons CO/year from RTO combustion emissions for K001-K006 combined

Applicable Compliance Method: Compliance with the hourly emissions limitation shall be determined by multiplying a maximum heat input of 5.2 mmBTU/hr by the emission factor in AP-42, Chapter 1.4 (revised 7/98) of 84 lbs CO/million scf of natural gas, and dividing by 1020 mmBtu/ mm cu. ft. of natural gas.

If required, compliance with the CO limitation above shall be determined in accordance with the test methods and procedures specified in 40 CFR, Part 60, Appendix A, Methods 1 - 4 and 10.

The annual CO emission limitation was established by multiplying the hourly limitation by 8760 hours/year, and then dividing by 2000 pounds/ton. Therefore, provided compliance is demonstrated with the hourly emission limitation, compliance with the annual limitation shall also be demonstrated.

- e. Emission Limitation: 8.75 tons per rolling, 12- month period for any individual Hazardous Air Pollutant (HAP) and 23.0 tons per rolling, 12-month period for any combination of HAPs for emissions unit K001-K008 and P001 combined

Applicable Compliance Method: Compliance shall be based upon the record keeping requirements in section C.3.

- f. Emission Limitation:
0.41 lb PM10/hour

Applicable Compliance Method:

To determine the actual worst case PM10 rate (E), the following equation shall be used:

$$E = \text{PM10 rate (lbs/hr)}$$

E = maximum coating solids usage rate for emission units K001 - K006 combined, in pounds per hour (1-TE) x (1-CE) plus RTO combustion emissions.

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TE = transfer efficiency, which is the ratio of the amount of coating solids deposited on the coated part to the amount of coating solids used (assumed to be 70%)

CE = control efficiency of the control equipment (established at 95%)

RTO combustion emissions = 5.2 mmBTU/hr times the emission factor in AP-42, Chapter 1.4 (revised 7/98) of 7.6 lbs PM10/million scf of natural gas, and dividing by 1020 mmBTU/ mm cu. ft. of natural gas.

If required, testing shall be conducted in accordance with Methods 201 and 202, 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the appropriate Ohio EPA district office or local field office.

- g. Emission Limitation:
Visible particulate emissions shall not exceed 5 percent opacity, as a six-minute average

Applicable Compliance Method:

If required, compliance shall be determined according to test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

F. Miscellaneous Requirements

None

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 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>
K007 - cleanup/equipment wipe-down (modification to multiple previously issued PTI's to re-permit cleanup from equipment wipedown as a separate emissions unit)	OAC rule 3745-31-05 (A)(3)	1352 lbs organic compounds (OC)/month; 8.11 tons OC/year
	OAC rule 3745-31-05 (C)	See A.2.a 8.75 tons per rolling, 12- month period for any individual Hazardous Air Pollutant (HAP) and 23.0 tons per rolling, 12- month period for any combination of HAPs for emissions unit K001-K008 and P001 combined (See A.2.b)
	OAC rule 3745-21-07 (G)(2)	See B.1

2. Additional Terms and Conditions

- 2.a The requirements of this rule include compliance with the requirements of OAC rule 3745-31-05 (C).
- 2.b This permit establishes federally enforceable limitations on emissions of hazardous air pollutants (HAPs) for purposes of avoiding Maximum Achievable Control Technology (MACT) regulations and Title V permitting requirements.

Annual HAP emissions from emissions unit K001-K008 and P001 combined shall not exceed 8.75 tons per year for any individual HAP and 23.0 tons per year for any combination of HAPs, based on a rolling, 12 - month summation of the monthly HAP emissions.

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Emissions Unit ID: K007

To ensure federal enforceability during the first 12 calendar months of operation under the provisions of this permit, the permittee shall not exceed the HAP emission rates specified in the following table for K001-K008 and P001 combined:

Maximum Allowable Cumulative HAP Emission Rates (tons):

<u>Month(s)</u>	<u>Individual HAP</u>	<u>Combined HAPs</u>
1-1	0.73	1.92
1-2	1.46	3.84
1-3	2.19	5.76
1-4	2.92	7.68
1-5	3.65	9.60
1-6	4.38	11.52
1-7	5.11	13.44
1-8	5.84	15.36
1-9	6.57	17.28
1-10	7.30	19.20
1-11	8.03	21.12
1-12	8.75	23.00

After the first 12 calendar months of operation under the provisions of this permit, compliance with the annual HAP limitations shall be based upon a rolling, 12-month summation of the monthly HAP emission rates.

B. Operational Restrictions

1. The use of photochemically reactive materials, as defined in OAC rule 3745-21-01, in this emissions unit is prohibited.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information each month for K007:
 - a. the company identification for each cleanup material employed;

- b. documentation of whether or not each cleanup material employed is a photochemically reactive material, as defined in OAC rule 3745-21-01;
 - c. the number of gallons of each cleanup material employed;
 - d. the organic compound content, in pounds per gallon, as applied of each cleanup material employed;
 - e. the organic compound emission rate for each cleanup material employed, in lbs/month (c x d) for each cleanup employed); and
 - f. the annual year-to-date organic compound emissions from all cleanup materials (sum of e for each month to date from January to December).
 2. The permittee shall collect and record the following HAP information each month for emission unit K001-K008 and P001 combined:
 - a. the company identification of each HAP containing material;
 - b. the amount of each individual HAP in each HAP containing material in lbs/gallon, as applied and/or by % weight;
 - c. the number of gallons and/or pounds of each HAP containing material employed;
 - d. the total controlled emission rate for each individual HAP from each HAP containing material employed in emissions unit K001 - K006 and the emission rate for each individual HAP from each HAP containing material employed K007, K008, and P001, for each individual HAP, in lbs/month;
 - e. the total emission rate for each individual HAP from all HAP containing materials employed (summation of C.3.d for each individual HAP), in lbs/month;
 - f. the total HAP emission rate for all HAPs combined from all HAP containing materials employed (summation of C.3.e for all HAPs), in lbs/month;
 - g. for the first 12 months of operation, under the provisions of this permit, the cumulative monthly emission rate of each individual HAP and all HAPs combined, in tons per month; and
 - h. after the first 12 months of operation, under the provisions of this permit, the annual emissions of each individual HAP and all HAPs combined, based upon a rolling 12-month summation of monthly emissions.
 - 3.. The Permit to Install for this emissions unit K007 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 Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutants:

Pollutant: Xylene

TLV (mg/m³): 434

Maximum Hourly Emission Rate (lbs/hr): 1.88

Predicted 1-Hour Maximum Ground-Level Concentration (mg/m³): 1173

MAGLC (mg/m³): 10333

4. 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 "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.

5. 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

D. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office) in writing of any monthly record showing the use of a photochemically reactive material. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office) within 30 days following the end of the calendar month.
2. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. Beginning the first month after the first 12 calendar months of operation under the provisions of this permit, all exceedances of the rolling, 12-month individual HAP and combined HAPs emission limitations of 8.75 tons and 23.00 tons, respectively (for emissions units K001 - K008 and P001 combined).
 - b. for the first 12 calendar months of operation under the provisions of this permit, all exceedances of the maximum allowable cumulative individual HAP and combined HAPs emission limitations specified in section A.2.b (for emissions units K001 - K008 and P001 combined).

These reports shall be submitted in accordance with the general terms and conditions of this permit.

3. The permittee shall submit annual reports that summarize the total annual actual OC emissions from cleanup operations for emissions units K007. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

E. Testing Requirements

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

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Emissions Unit ID: K007

- a. Emission Limitation: 1352 lbs OC/month; 8.11 tons OC/year from cleanup operations

Applicable Compliance Method: Compliance with the emission limitations shall be based upon the recordkeeping requirements specified in C.1.

- b. Emission Limitation: 8.75 tons per rolling, 12- month period for any individual Hazardous Air Pollutant (HAP) and 23.0 tons per rolling, 12-month period for any combination of HAPs for emissions unit K001-K008 and P001 combined

Applicable Compliance Method: Compliance shall be based upon the record keeping requirements in section C.2.

F. Miscellaneous Requirements

None

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

- The specific operations(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 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>
K008 - Maintenance paint booth with dry filtration (modification to multiple previously issued PTI's to re-permit maintenance painting operations)	OAC rule 3745-31-05 (A)(3)	48.35 lbs organic compound (OC)/day, 8.82 tons OC/year 0.41 lb particulate emissions (PE)/hour
	OAC rule 3745-31-05 (C)	See A.2.a 8.75 tons per rolling, 12- month period for any individual Hazardous Air Pollutant (HAP) and 23.0 tons per rolling, 12- month period for any combination of HAPs for emissions unit K001-K008 and P001 combined (See A.2.b)
	OAC rule 3745-21-09 (U)(2)(e)(iii)	VOC emission exemption, based on maximum coating usage never exceeding 10 gallons in any one day
	OAC rule 3745-17-11(B)	See A.2.d
	OAC rule 3745-17-07(A)	Visible particulate emissions shall not exceed 20 percent opacity, as a six-minute average, except as provided by rule

M-TEK, Inc.

PTI Application: 03-17006

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Facility ID: 0388010052

Emissions Unit ID: K008

2. Additional Terms and Conditions

2.a The requirements of this rule include compliance with the requirements of OAC rule 3745-31-05 (C), OAC rule 3745-21-09(U)(2)(e)(iii), and OAC rule 3745-17-07(A).

2.b This permit establishes federally enforceable limitations on emissions of hazardous air pollutants (HAPs) for purposes of avoiding Maximum Achievable Control Technology (MACT) regulations and Title V permitting requirements.

Annual HAP emissions from emissions unit K001-K008 and P001 combined shall not exceed 8.75 tons per year for any individual HAP and 23.0 tons per year for any combination of HAPs, based on a rolling, 12 - month summation of the monthly HAP emissions.

To ensure federal enforceability during the first 12 calendar months of operation under the provisions of this permit, the permittee shall not exceed the HAP emission rates specified in the following table for K001-K008 and P001 combined:

Maximum Allowable Cumulative HAP Emission Rates (tons):

<u>Month(s)</u>	<u>Individual HAP</u>	<u>Combined HAPs</u>
36525	0.73	1.92
36526	1.46	3.84
36527	2.19	5.76
36528	2.92	7.68
36529	3.65	9.6
36530	4.38	11.52
36531	5.11	13.44
36532	5.84	15.36
36533	6.57	17.28
36534	7.3	19.2
36535	8.03	21.12
36536	8.75	23

After the first 12 calendar months of operation under the provisions of this permit, compliance with the annual HAP limitations shall be based upon a rolling, 12-month summation of the monthly HAP emission rates.

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

B. Operational Restrictions

- 1. The permittee shall operate the dry filtration system for the control of particulate matter whenever this emissions unit is in operation.

C. Monitoring and/or Recordkeeping Requirements

- 1. The permittee shall collect and record the following information each day for coating operations in emissions unit K008:
 - a. the name and identification number of each coating employed;
 - b. the volume, in gallons, of each coating employed;
 - c. the total volume, in gallons, of all coatings employed;
 - d. the organic compound (OC) content of each coating, in lbs/gallon, as applied;
 - e. the OC emission rate for each coating, in lbs/day (b x d);
 - f. the total OC emission rate for all coatings, in lbs/day (sum of e);
- 2. The permittee shall collect and record the following HAP information each month for emission unit K001-K008 and P001 combined:
 - a. the company identification of each HAP containing material;
 - b. the amount of each individual HAP in each HAP containing material in lbs/gallon, as applied and/or by % weight;
 - c. the number of gallons and/or pounds of each HAP containing material employed;
 - d. the total controlled emission rate for each individual HAP from each HAP containing material employed in emissions unit K001 - K006 and the emission rate for each individual HAP from each HAP containing material employed K007, K008, and P001, for each individual HAP, in lbs/month;

- e. the total emission rate for each individual HAP from all HAP containing materials employed (summation of C.3.d for each individual HAP), in lbs/month;
 - f. the total HAP emission rate for all HAPs combined from all HAP containing materials employed (summation of C.3.e for all HAPs), in lbs/month;
 - g. for the first 12 months of operation, under the provisions of this permit, the cumulative monthly emission rate of each individual HAP and all HAPs combined, in tons per month; and
 - h. after the first 12 months of operation, under the provisions of this permit, the annual emissions of each individual HAP and all HAPs combined, based upon a rolling 12-month summation of monthly emissions.
3. The Permit to Install for this emissions unit K008 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 Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutants:

Pollutant: Xylene

TLV (mg/m3): 434

Maximum Hourly Emission Rate (lbs/hr): 0.61

Predicted 1-Hour Maximum Ground-Level Concentration (mg/m3): 1173

MAGLC (mg/m3): 10333

4. 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 "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.

- 5. 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
- 6. The permittee shall operate the dry filtration system for the control of particulate matter whenever this emissions unit is in operation.

D. Reporting Requirements

- 1. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. Beginning the first month after the first 12 calendar months of operation under the provisions of this permit, all exceedances of the rolling, 12-month individual HAP and combined HAPs emission limitations of 8.75 tons and 23.00 tons, respectively (for emissions units K001 - K008 and P001 combined).
 - b. for the first 12 calendar months of operation under the provisions of this permit, all exceedances of the maximum allowable cumulative individual HAP and combined HAPs emission limitations specified in section A.2.b (for emissions units K001 - K008 and P001 combined).

These reports shall be submitted in accordance with the general terms and conditions of this permit.

2. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any daily record showing that the dry filtration system was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days after the event occurs.
3. In accordance with the General Terms and Conditions of this permit, the permittee shall submit deviation (excursion) reports which identify any exceedances of the 45.35 lbs of OC/day from the use of coatings.
4. The permittee shall notify the Northwest District Office in writing of any daily record showing that the coating line employs more than the applicable maximum daily coating usage limit. The notification shall include a copy of such record and shall be sent to the Northwest District Office within 45 days after the exceedance occurs.

E. Testing Requirements

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

- a. Emission Limitation: 48.35 lbs organic compound (OC)/day, 8.82 tons OC/year

Applicable Compliance Method: Compliance with the daily emission limitation shall be based upon the recordkeeping requirements specified in C.1.

The annual limitation was established by multiplying the daily emission limitation by the maximum operating schedule of 365 days/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the daily emission limitation, compliance with the annual limitation will be assumed.

- b. Emission Limitation: 8.75 tons per rolling, 12- month period for any individual Hazardous Air Pollutant (HAP) and 23.0 tons per rolling, 12-month period for any combination of HAPs for emissions unit K001-K008 and P001 combined

Applicable Compliance Method: Compliance shall be based upon the record keeping requirements in section C.2.

- c. Emission Limitation:
0.41 lb PE per hour

Applicable Compliance Method:

To determine the actual worst case PE rate (E), the following equation shall be used for each individual coating operations:

E = PE rate (lbs/hr)

E = maximum coating solids usage rate, in pounds per hour $(1-TE) \times (1-CE)$

TE = transfer efficiency, which is the ratio of the amount of coating solids deposited on the coated part to the amount of coating solids used (assumed to be 65%)

CE = control efficiency of the control equipment (established at 95%)

If required, the permittee shall demonstrate compliance with the emission limitation above pursuant to OAC rule 3745-17-03(B)(10).

d. Emission Limitation:

Visible particulate emissions shall not exceed 20 percent opacity, as a six-minute average, except as provided by rule

Applicable Compliance Method:

If required, compliance shall be determine in accordance with OAC rule 3745-17-03(B)(1).

F. Miscellaneous Requirements

None

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 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>
P001 - Injection molding flaw repair station (modification to multiple previously issued PTI's to re-permit injection molding flaw repair as a separate emissions unit)	OAC rule 3745-31-05 (A)(3)	39.20 lbs organic compounds (OC)/day, 7.15 tons OC/yr
	OAC rule 3745-31-05 (C)	See A.2.a 8.75 tons per rolling, 12- month period for any individual Hazardous Air Pollutant (HAP) and 23.0 tons per rolling, 12- month period for any combination of HAPs for emissions unit K001-K008 and P001 combined (See A.2.b)
	OAC rule 3745-21-07 (G)(2)	8 lbs organic compounds (OC)/hr (See A.2.c)

2. Additional Terms and Conditions

- 2.a The requirements of this rule include compliance with the requirements of OAC rule 3745-31-05 (C) and OAC rule 3745-21-07 (G)(2).
- 2.b This permit establishes federally enforceable limitations on emissions of hazardous air pollutants (HAPs) for purposes of avoiding Maximum Achievable Control Technology (MACT) regulations and Title V permitting requirements.

Annual HAP emissions from emissions unit K001-K008 and P001 combined shall not exceed 8.75 tons per year for any individual HAP and 23.0 tons per year for any combination of HAPs, based on a rolling, 12 - month summation of the monthly HAP emissions.

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To ensure federal enforceability during the first 12 calendar months of operation under the provisions of this permit, the permittee shall not exceed the HAP emission rates specified in the following table for K001-K008 and P001 combined:

Maximum Allowable Cumulative HAP Emission Rates (tons):

<u>Month(s)</u>	<u>Individual HAP</u>	<u>Combined HAPs</u>
36525	0.73	1.92
36526	1.46	3.84
36527	2.19	5.76
36528	2.92	7.68
36529	3.65	9.6
36530	4.38	11.52
36531	5.11	13.44
36532	5.84	15.36
36533	6.57	17.28
36534	7.3	19.2
36535	8.03	21.12
36536	8.75	23

After the first 12 calendar months of operation under the provisions of this permit, compliance with the annual HAP limitations shall be based upon a rolling, 12-month summation of the monthly HAP emission rates.

- 2.c** The requirements of OAC rule 3745-21-07(G)(2) that OC emissions shall not exceed 40 pounds per day is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

B. Operational Restrictions

None

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information each day for P001:

- a. the company identification for each flaw repair material employed;
 - b. the amount of each flaw repair material used, in pounds;
 - c. the organic compound content of each flaw repair, in weight %;
 - d. the organic compound emission rate for each flaw repair material, in lbs/day (b x c) for flaw repair solvent);
 - e. the total organic compound emission rate for all flaw repair materials employed, in pounds per day (summation of d);
 - f. the total number of hours the emissions unit was in operation;
 - g. the average hourly organic compound emission rate for all flaw repair materials, i.e., (d)/(e), in pounds per hour, average.
 - h. in conjunction with the recordkeeping above, the permittee shall collect and record the following information each month:
 - i. the total organic compound emission rate for all flaw repair materials, in pounds per month;
 - ii. the annual year-to-date organic compound emissions, in tons (summation of C.1.h.i for each calendar month to date from January to December).
2. The permittee shall collect and record the following HAP information each month for emission unit K001-K008 and P001 combined:
- a. the company identification of each HAP containing material;
 - b. the amount of each individual HAP in each HAP containing material in lbs/gallon, as applied and/or by % weight;
 - c. the number of gallons and/or pounds of each HAP containing material employed;
 - d. the total controlled emission rate for each individual HAP from each HAP containing material employed in emissions unit K001 - K006 and the emission rate for each individual HAP from each HAP containing material employed K007, K008, and P001, for each individual HAP, in lbs/month;
 - e. the total emission rate for each individual HAP from all HAP containing materials employed (summation of C.3.d for each individual HAP), in lbs/month;
 - f. the total HAP emission rate for all HAPs combined from all HAP containing materials employed (summation of C.3.e for all HAPs), in lbs/month;

- g. for the first 12 months of operation, under the provisions of this permit, the cumulative monthly emission rate of each individual HAP and all HAPs combined, in tons per month; and
 - h. after the first 12 months of operation, under the provisions of this permit, the annual emissions of each individual HAP and all HAPs combined, based upon a rolling 12-month summation of monthly emissions.
- 3. The Permit to Install for this emissions unit P001 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 Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutants:

Pollutant: Toluene

TLV (mg/m3): 188.40

Maximum Hourly Emission Rate (lbs/hr): 1.06

Predicted 1-Hour Maximum Ground-Level Concentration (mg/m3): 1089

MAGLC (mg/m3): 4486

Pollutant: Xylene

TLV (mg/m3): 434

Maximum Hourly Emission Rate (lbs/hr): 8.0

Predicted 1-Hour Maximum Ground-Level Concentration (mg/m3): 8375

MAGLC (mg/m3): 10333

- 4. 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 "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.

- 5. 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

D. Reporting Requirements

- 1. The permittee shall submit deviation (excursion) reports which identify any exceedance of the 8 pounds OC/hour and the 39.20 pounds OC/day emission limitations established in section A1 of this permit. The permittee shall submit these deviation (excursion) reports in accordance with the General Terms and Conditions of this permit.
- 2. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. Beginning the first month after the first 12 calendar months of operation under the provisions of this permit, all exceedances of the rolling, 12-month individual HAP and combined HAPs emission limitations of 8.75 tons and 23.00 tons, respectively (for emissions units K001 - K008 and P001 combined).
 - b. for the first 12 calendar months of operation under the provisions of this permit, all exceedances of the maximum allowable cumulative individual HAP and

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Emissions Unit ID: P001

combined HAPs emission limitations specified in section A.2.b (for emissions units K001 - K008 and P001 combined).

These reports shall be submitted in accordance with the general terms and conditions of this permit.

E. Testing Requirements

1. Compliance with the emission limitations specified in section A.1 of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation: 39.2 lbs OC/day, 7.15 tons OC/year

Applicable Compliance Method: Compliance with the daily and annual emission limitation shall be based upon the recordkeeping requirements specified in C.1.
 - b. Emission Limitation: 8.0 lbs OC/hr

Applicable Compliance Method: Compliance with the hourly emission limitation shall be based on the recordkeeping requirements specified in C.1.
 - c. Emission Limitation: 8.75 tons per rolling, 12- month period for any individual Hazardous Air Pollutant (HAP) and 23.0 tons per rolling, 12-month period for any combination of HAPs for emissions unit K001-K008 and P001 combined

Applicable Compliance Method: Compliance shall be based upon the record keeping requirements in section C.2.

F. Miscellaneous Requirements

None