

Synthetic Minor Determination and/or **Netting Determination**
Permit To Install **08-04713**

A. Source Description

3 Sigma Corporation, SIC 2672, is a manufacturer of pressure sensitive tapes and labels. Current manufacturing operations include application of water based or thermoplastic adhesive coatings to continuous paper or film web. The adhesive coatings are purchased, not manufactured at the plant. 3 Sigma currently operates four emissions units at this facility (which they are requesting to modify with this PTI action). Emissions unit K001 is a combination of six hot melt adhesive coaters (de minimis) and emissions units K002, K003 and K004 are waterborne coating lines. They have also submitted a PTI application for the installation of three new sources, K005, K006 and K007. The following sources contribute to 3 Sigma's facility wide volatile organic compound emissions:

	PTE (TPY) (uncontrolled)			PTE (TPY) (w/control)			Actual (TPY) **		
	VOC	Ind. HAP	Total HAP	VOC	Ind. HAP	Total HAP	VOC	Ind. HAP	Total HAP
K001***	0	0	0	0	0	0	0	0	0
K002	8.28	0.59	0.59	8.28	0.59	0.59	8.28	0.59	0.59
K003	8.28	0.59	0.59	8.28	0.59	0.59	8.28	0.59	0.59
K004	8.28	0.59	0.59	8.28	0.59	0.59	8.28	0.59	0.59
K005*	1111.64	463.19	609.35	33.35	13.90	18.28	15.23	6.35	8.35
K006*	1111.64	463.19	609.35	33.35	13.90	18.28	15.23	6.35	8.35
K007	32.50	2.32	2.32	32.50	2.32	2.32	14.84	1.06	1.06
Total	2280.62	930.47	1222.79	124.03	31.89	40.66	70.13	****15.52	19.53

* 97% controlled w/ thermal oxidizer when using solvent based coatings

** Based on voluntary usage restrictions (Synthetic Minor Limits)

*** De minimis, 100% solids employed

**** 3 Sigma is accepting further emission limitations to restrict their individual HAP emissions to 9.9 TPY per rolling, 12-month. Compliance with this emissions limitation will be shown through record keeping.

B. Facility Emissions and Attainment Status

Miami county is designated as attainment for all criteria pollutants except ozone. 3 Sigma will have 7 emission units, of which 4 (K001-K004) are currently permitted as non TV emission units. PTI actions are currently permitting the addition of 3 new coating lines (08-04708) which will place synthetic minor limitations on K005, K006 and K007; and the modification of K001 - K004 (08-04713) which will place K001 on de minimis status and synthetic minor limitations on K002, K003, and K004. The current facility wide VOC potential to emit (PTE) permitted allowable is 70.13 TPY VOC from all emission units. Those emission units that will be covered by synthetic minor permit to installs contribute all 70.13 TPY VOC to the facility.

C. Source Emissions

Uncontrolled potential to emit from the facility is 2280.62 TPY VOC, 930.47 TPY individual HAP, and 1222.79 TPY combined HAP. This permit will be issued in draft and will have

federally enforceable rolling, 12-month limitations of 70.13 TPY VOC, 9.9 TPY individual HAP, and 24.9 combined HAP. The short term limitations are based on the potential to emit for

these emissions units, with control as applicable. K005 and K006 will be controlled when employing solvent based coatings by a thermal oxidizer with 97% overall VOC removal efficiency. Parametric monitoring and record keeping of the thermal oxidizer will also be federally enforceable.

D. Conclusion

A PTI is recommended for these emission units. Federal enforceability of the synthetic minor emission limitation will be achieved through parametric monitoring of the control device and rolling, 12-month limitations on VOC, individual HAP, and Combined HAP emissions.



State of Ohio Environmental Protection Agency

**RE: DRAFT PERMIT TO INSTALL
MIAMI COUNTY**

CERTIFIED MAIL

Street Address:

Lazarus Gov. Center TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:
Lazarus Gov.
Center

Application No: 08-04713

Fac ID: 0855140498

DATE: 9/27/2005

3 Sigma Corporation
Paul Benson
1985 W. Stanfield
Troy, OH 45373-2330

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, 43266-0149.

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 **\$600** 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

CC: USEPA

RAPCA

Miami Valley Regional Planning Commission

IN

MIAMI COUNTY

PUBLIC NOTICE

ISSUANCE OF DRAFT PERMIT TO INSTALL **08-04713** FOR AN AIR CONTAMINANT SOURCE FOR
3 Sigma Corporation

On 9/27/2005 the Director of the Ohio Environmental Protection Agency issued a draft action of a Permit To Install an air contaminant source for **3 Sigma Corporation**, located at **1985 West Stanfield Road, Troy, Ohio**.

Installation of the air contaminant source identified below may proceed upon final issuance of Permit To Install 08-04713:

chapter 31 modification replacing PTI 08-03734 issued 1/21/98 to increase allowable emissions and accept federally enforceable half limits to K002-K004.

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.

John Paul, Regional Air Pollution Control Agency, 117 South Main Street, Dayton, OH 45422-1280
[(937)225-4435]



**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 08-04713

Application Number: 08-04713
Facility ID: 0855140498
Permit Fee: **To be entered upon final issuance**
Name of Facility: 3 Sigma Corporation
Person to Contact: Paul Benson
Address: 1985 W. Stanfield
Troy, OH 45373-2330

Location of proposed air contaminant source(s) [emissions unit(s)]:
**1985 West Stanfield Road
Troy, Ohio**

Description of proposed emissions unit(s):
Chapter 31 modification replacing PTI 08-03734 issued 1/21/98 to increase allowable emissions and accept federally enforceable half limits to K002-K004.

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

Director

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 quarterly, i.e., 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,

3 Sigma Corporation

PTI Application: 08-04713

Facility ID: 0855140498

Issued: To be entered upon final issuance

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.

3 Sigma Corporation

PTI Application: 08-04713

Issued: To be entered upon final issuance

Facility ID: 0855140498

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

3 Sigma Corporation

Facility ID: 0855140498

PTI Application: 08-04713

Issued: To be entered upon final issuance

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

3 Sigma Corporation
PTI Application: 08-04712
Issue

Facility ID: 0855140498

Emissions Unit ID: **K002**

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>
VOC	24.83
Ind HAP	9.9
Combined HAP	24.9

3 Sign
PTI A

Emissions Unit ID: **K002**

Issued: To be entered upon final issuance

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>
K002 - Egan Coater	OAC rule 3745-31-05(A)(3)
	OAC rule 3745-21-09(F)
	40 CFR Part 60, Subpart RR
	OAC rule 3745-31-05(C) OAC rule 3745-35-07(B) (synthetic minor to avoid PSD and Title V)

**3 Sign
PTI A**

Emissions Unit ID: **K002**

Issued: To be entered upon final issuance

Applicable Emissions
Limitations/Control Measures

The volatile organic compound (VOC) emissions from this emissions unit shall not exceed 1.89 pounds per hour (lbs/hr), excluding cleanup.

The VOC emissions from this emissions unit shall not exceed 8.28 tons per rolling 12 month summation, including cleanup.

See A.2.a, B.1., and B.2.

The requirements of this rule shall also include compliance with the requirements of OAC rules 3745-31-05(C), 3745-35-07(B), 3745-21-09(F), 3745-21-09(B)(6) and 40 CFR Part 60, Subpart RR.

The total allowable emissions of VOC from emissions units K002, K003, K004, K005, K006, and K007 shall not exceed 70.13 tons per rolling 12 month summation, including cleanup.

The total allowable emissions of individual hazardous air pollutant (HAP) emissions from emissions units K002, K003, K004, K005, K006, and K007 shall not exceed 9.9 tons per rolling 12 month summation, including cleanup.

The total allowable emissions of combined hazardous air pollutant (HAP) emissions from emissions units K002, K003, K004, K005, K006, and K007 shall not exceed 24.9 tons per rolling 12 month summation, including cleanup.

The VOC content shall not exceed 2.9 lbs volatile organic compounds (VOC)/gallon of coating, excluding water and exempt solvents.

The VOC content shall not exceed 0.2 kilogram (kg)/kg of coating solids as calculated on a weighted average basis for each calendar month.

**3 Sign
PTI A**Emissions Unit ID: **K002****Issued: To be entered upon final issuance****2. Additional Terms and Conditions**

- 2.a** The 1.89 pounds VOC per hour emission limit was established for PTI purposes to reflect the potential to emit for the emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limitation.

B. Operational Restrictions

1. The maximum annual volatile organic material usage for emission units K002, K003, K004, K005, K006 and K007 shall not exceed 70.13 tons per year, based upon a rolling, 12-month summation of the monthly volatile organic material usage figures from a combination of coatings and cleanup. The annual volatile organic material usage in this term equates to the annual VOC emission rate in term A.1 based upon the premise that 100% of all the solvents contained within the material usage is emitted and therefore all the record keeping and reporting requirements of this permit for the VOC emissions will be sufficient to verify the annual volatile organic material usage rate of this term.

To ensure enforceability during the first twelve calendar months of operation following the issuance of this permit, the actual volatile organic material usage records over the previous 12 calendar months of operation shall be used to calculate the rolling, 12-month summation from the facility.

2. The maximum annual HAPs material usage for emission units K002, K003, K004, K005, K006 and K007 shall not exceed 9.9 tons per year for any individual HAP and 24.9 tons per year for any combination of HAPs, based upon a rolling, 12-month summation of the monthly HAPs material usage figures from a combination of coatings and cleanup.

To ensure enforceability during the first twelve calendar months of operation following the issuance of this permit, the actual individual and combined HAPs material usage records over the previous 12 calendar months of operation shall be used to calculate the rolling, 12-month summation from the facility.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information for each month that this emissions unit is operating:
- a. The name and identification of each surface coating and cleanup material employed.

- b. The number of gallons of each surface coating and cleanup material employed.
- c. The weight, in pound per month, of each surface coating and cleanup material employed, as applied.
- d. The VOC content for each surface coating and cleanup material employed, in pounds per gallon.
- e. The VOC content for each surface coating and cleanup material, as applied, in percent by weight.
- f. The VOC content of each surface coating employed, in pounds per gallon (excluding water and exempt solvents).
- g. The individual HAP content for each surface coating and cleanup material employed, in pounds per gallon.
- h. The combined HAP content for each surface coating and cleanup material employed, in pounds per gallon.
- i. The total volatile organic material usage from all surface coating and cleanup material, in pounds.
- j. The VOC emission rate from each surface coating and cleanup material employed (b x d), in pounds.
- k. The individual HAP emission rate from each surface coating and cleanup material employed (b x g), in pounds.
- l. The combined HAP emission rate from each surface coating and cleanup material employed (b x h), in pounds.
- m. The total VOC emissions from all coatings and cleanup materials employed, in pounds.
- n. The total individual HAP emissions from all coatings and cleanup material employed, in pounds.
- o. The total combined HAP emissions from all coatings and cleanup material employed, in pounds.
- p. The rolling, 12-month summation of the volatile organic material usage from all surface coating and cleanup materials.

Issued: To be entered upon final issuance

- q. The rolling, 12-month summation of the VOC emissions from this emissions unit, in tons, i.e., the summation of (m) for the previous 12-month period divided by 2000 lbs/ton.
 - r. The rolling, 12-month summation of the individual HAP emissions from this emissions unit, in tons, i.e., the summation of (n) for the previous 12-month period divided by 2000 lbs/ton.
 - s. The rolling, 12-month summation of the combined HAP emissions from this emissions unit, in tons, i.e., the summation of (o) for the previous 12-month period divided by 2000 lbs/ton.
2. The permittee shall collect and record the following information for each month that this emissions unit is operating:
- a. The company identification of each surface coating employed.
 - b. The number of gallons of each surface coating employed.
 - c. The VOC content for each surface coating employed, in pounds per gallon.
 - d. The VOC content for each surface coating employed, in pounds per gallon, excluding water and exempt solvents.
 - e. The VOC content for each surface coating employed, in kilograms per gallon ((c.)/2.20 lbs/kg).
 - f. The total mass of VOC applied, in kilograms (the sum of (e) x (b) for all coatings applied).

Emissions Unit ID: **K002**

- g. The solids content for each surface coating employed, in pounds per gallon.
 - h. The solids content for each surface coating employed, in pounds per gallon kilograms per gallon ((g.)/2.20 lbs/kg).
 - i. The total mass of solids applied, in kilograms (the sum of the product (h) x (b) for all coatings applied).
 - j. The VOC emissions, in kg VOC/kg solids ((f)/(i)).
3. The permit to install for this emissions unit K002 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 applications, for K002, K003, K004, K005, K006 and K007. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Hexane

TLV (mg/m3): 176

Maximum Hourly Emission Rate (lbs/hr): 28.31

Predicted 1-Hour Maximum Ground-Level
 Concentration (ug/m3): 1679

MAGLC (ug/m3): 1762

Pollutant: N-Butyl Acrylate

TLV (mg/m3): 10

Maximum Hourly Emission Rate (lbs/hr): 0.660

Predicted 1-Hour Maximum Ground-Level
 Concentration (ug/m3): 39.14

MAGLC (ug/m3): 105

Pollutant: Vinyl Acetate

Issued: To be entered upon final issuanceTLV (mg/m³): 35

Maximum Hourly Emission Rate (lbs/hr): 3.342

Predicted 1-Hour Maximum Ground-Level
Concentration (ug/m³): 198.18MAGLC (ug/m³): 352

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 still 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.
- 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

Issued: To be entered upon final issuance

permit to install prior to the change.

4. 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".
 - c. Where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

D. Reporting Requirements

1. The permittee shall submit annual reports which specify the VOC emissions, in tons, from all emissions unit. The permittee shall also submit annual reports which specify the individual HAP and total combined HAP emissions, in tons, from all emissions units at the facility. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.
2. The permittee shall submit quarterly deviation (excursion) reports that include the following:
 - a. An identification of each month during which the rolling, 12-month volatile organic material usage and/or VOC emissions exceeded the 70.13 TPY rolling, 12-month facility volatile organic material usage and/or VOC emission limitations, and the actual rolling, 12-month volatile organic material usage and/or VOC emission rates for each such month.
 - b. An identification of each month during which the rolling, 12-month individual facility HAP emission rate exceeded the 9.9 TPY rolling, 12-month individual facility HAP emission limitation, and the actual rolling, 12-month individual facility HAP emission rate for each such month.
 - c. An identification of each month during which the rolling, 12-month combined facility HAP emission rate exceeded the 24.9 TPY rolling, 12-month combined facility HAP emission limitation, and the actual rolling, 12-month combined

3 Sigma Corporation
PTI Application: 08-04712
Issue

Facility ID: 0855140498

Emissions Unit ID: K002

facility HAP emission rate for each such month.

- d. Any monthly record showing the use of noncomplying coatings pursuant to the requirements in 40 CFR Part 60, Subpart RR.

These quarterly deviation reports shall be submitted by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarter.

3. Pursuant to reporting requirements in OAC rule 3745-21-09(B), the permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of noncomplying coatings. 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 following the end of the calendar month.

Issued: To be entered upon final issuance**E. Testing Requirements**

1. Compliance with the specified emission limitations in Section A.1. of this permit shall be demonstrated in accordance with the following methods:
 - a. Emission Limitation -
The VOC emissions from this emissions unit shall not exceed 1.89 pounds per hour, excluding cleanup

Applicable Compliance Method -
Compliance shall be determined by multiplying the maximum hourly coating usage rate (13.5 gals ctg) by the maximum VOC content (0.14 lbs VOC/gal ctg).
 - b. Emission Limitation -
The VOC emissions from this emissions unit shall not exceed 8.28 tons per rolling 12-month summation, including cleanup

Applicable Compliance Method -
Compliance shall be based upon the record keeping requirements specified in Section C.1. of this permit.
 - c. Emission Limitation -
The individual HAP emission from this emissions unit shall not exceed 9.9 TPY, based on a 12-month rolling summation

Applicable Compliance Method
Compliance shall be based upon the record keeping requirements specified in Section C.1. of this permit.
 - d. Emission Limitation-
The combination of HAPs from this emissions unit shall not exceed 24.9 TPY, based on a 12-month rolling summation

Applicable Compliance Method
Compliance shall be based upon the record keeping requirements specified in Section C.1. of this permit.
 - e. Emission Limitation-
The VOC content shall not exceed 2.9 lbs VOC/gallon of coating, excluding water and exempt solvents, when operating without the use of a control system.

3 Sigma Corporation

PTI Application: 08-04712

Issue

Facility ID: 0855140498

Emissions Unit ID: K002

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements specified in Section C.2. of this permit.

**3 Signatures
PTI A**

Emissions Unit ID: **K002**

Issued: To be entered upon final issuance

- f. Emission Limitation-
The VOC content shall not exceed 0.20 kg/kg of coating solids as calculated on a weighted average basis for each calendar month, when operating without the use of a control system.

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements specified in Section C.2. of this permit.

F. Miscellaneous Requirements

- 1. The following terms and conditions are federally enforceable: Sections A.1 (only the requirements associated with OAC 3745-35-07(B) and 40 CFR Part 60, Subpart RR), B.1 and 2, C.1 and 2., D.1 and 2, E.1.c and d.

3 Sign
PTI A

Emissions Unit ID: **K003**

Issued: To be entered upon final issuance

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>
K003 - No. 128 coater	OAC rule 3745-31-05(A)(3)
	OAC rule 3745-21-09(F)
	40 CFR Part 60, Subpart RR
	OAC rule 3745-31-05(C) OAC rule 3745-35-07(B) (synthetic minor to avoid PSD and Title V)

3 Sign**PTI A**Emissions Unit ID: **K003****Issued: To be entered upon final issuance**Applicable Emissions
Limitations/Control Measures

The volatile organic compound (VOC) emissions from this emissions unit shall not exceed 1.89 pounds per hour (lbs/hr), excluding cleanup.

The VOC emissions from this emissions unit shall not exceed 8.28 tons per rolling 12 month summation, including cleanup.

See A.2.a, B.1., and B.2.

The requirements of this rule shall also include compliance with the requirements of OAC rules 3745-31-05(C), 3745-35-07(B), 3745-21-09(F) 3745-21-09(B)(6) and 40 CFR Part 60, Subpart RR.

The total allowable emissions of VOC from emissions units K002, K003, K004, K005, K006, and K007 shall not exceed 70.13 tons per rolling 12 month summation, including cleanup.

The total allowable emissions of individual hazardous air pollutant (HAP) emissions from emissions units K002, K003, K004, K005, K006, and K007 shall not exceed 9.9 tons per rolling 12 month summation, including cleanup.

The total allowable emissions of combined hazardous air pollutant (HAP) emissions from emissions units K002, K003, K004, K005, K006, and K007 shall not exceed 24.9 tons per rolling 12 month summation, including cleanup.

The VOC content shall not exceed 2.9 lbs volatile organic compounds (VOC)/gallon of coating, excluding water and exempt solvents.

The VOC content shall not exceed 0.2 kilogram (kg)/kg of coating solids as calculated on a weighted average basis for each calendar month.

**3 Sign
PTI A**Emissions Unit ID: **K003****Issued: To be entered upon final issuance****2. Additional Terms and Conditions**

- 2.a** The 1.89 pounds VOC per hour emission limit was established for PTI purposes to reflect the potential to emit for the emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limitation.

B. Operational Restrictions

1. The maximum annual volatile organic material usage for emission units K002, K003, K004, K005, K006 and K007 shall not exceed 70.13 tons per year, based upon a rolling, 12-month summation of the monthly volatile organic material usage figures from a combination of coatings and cleanup. The annual volatile organic material usage in this term equates to the annual VOC emission rate in term A.1 based upon the premise that 100% of all the solvents contained within the material usage is emitted and therefore all the record keeping and reporting requirements of this permit for the VOC emissions will be sufficient to verify the annual volatile organic material usage rate of this term.

To ensure enforceability during the first twelve calendar months of operation following the issuance of this permit, the actual volatile organic material usage records over the previous 12 calendar months of operation shall be used to calculate the rolling, 12-month summation from the facility.

2. The maximum annual HAPs material usage for emission units K002, K003, K004, K005, K006 and K007 shall not exceed 9.9 tons per year for any individual HAP and 24.9 tons per year for any combination of HAPs, based upon a rolling, 12-month summation of the monthly HAPs material usage figures from a combination of coatings and cleanup.

To ensure enforceability during the first twelve calendar months of operation following the issuance of this permit, the actual individual and combined HAPs material usage records over the previous 12 calendar months of operation shall be used to calculate the rolling, 12-month summation from the facility.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information for each month that this emissions unit is operating:
- a. The name and identification of each surface coating and cleanup material employed.

- b. The number of gallons of each surface coating and cleanup material employed.
- c. The weight, in pound per month, of each surface coating and cleanup material employed, as applied.
- d. The VOC content for each surface coating and cleanup material employed, in pounds per gallon.
- e. The VOC content for each surface coating and cleanup material, as applied, in percent by weight.
- f. The VOC content of each surface coating employed, in pounds per gallon (excluding water and exempt solvents).
- g. The individual HAP content for each surface coating and cleanup material employed, in pounds per gallon.
- h. The combined HAP content for each surface coating and cleanup material employed, in pounds per gallon.
- i. The total volatile organic material usage from all surface coating and cleanup material, in pounds.
- j. The VOC emission rate from each surface coating and cleanup material employed (b x d), in pounds.
- k. The individual HAP emission rate from each surface coating and cleanup material employed (b x g), in pounds.
- l. The combined HAP emission rate from each surface coating and cleanup material employed (b x h), in pounds.
- m. The total VOC emissions from all coatings and cleanup materials employed, in pounds.
- n. The total individual HAP emissions from all coatings and cleanup material employed, in pounds.
- o. The total combined HAP emissions from all coatings and cleanup material employed, in pounds.
- p. The rolling, 12-month summation of the volatile organic material usage from all surface coating and cleanup materials.

Issued: To be entered upon final issuance

- q. The rolling, 12-month summation of the VOC emissions from this emissions unit, in tons, i.e., the summation of (m) for the previous 12-month period divided by 2000 lbs/ton.
 - r. The rolling, 12-month summation of the individual HAP emissions from this emissions unit, in tons, i.e., the summation of (n) for the previous 12-month period divided by 2000 lbs/ton.
 - s. The rolling, 12-month summation of the combined HAP emissions from this emissions unit, in tons, i.e., the summation of (o) for the previous 12-month period divided by 2000 lbs/ton.
2. The permittee shall collect and record the following information for each month that this emissions unit is operating:
- a. The company identification of each surface coating employed.
 - b. The number of gallons of each surface coating employed.
 - c. The VOC content for each surface coating employed, in pounds per gallon.
 - d. The VOC content for each surface coating employed, in pounds per gallon, excluding water and exempt solvents.
 - e. The VOC content for each surface coating employed, in kilograms per gallon ((c.)/2.20 lbs/kg).
 - f. The total mass of VOC applied, in kilograms (the sum of (e) x (b) for all coatings applied).

3 Sign
PTI A

Emissions Unit ID: **K003**

Issued: To be entered upon final issuance

- g. The solids content for each surface coating employed, in pounds per gallon.
 - h. The solids content for each surface coating employed, in pounds per gallon kilograms per gallon ((g.)/2.20 lbs/kg).
 - i. The total mass of solids applied, in kilograms (the sum of the product (h) x (b) for all coatings applied).
 - j. The VOC emissions, in kg VOC/kg solids ((f)/(i)).
3. The permit to install for this emissions unit K003 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 applications, for K002, K003, K004, K005, K006 and K007. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Hexane

TLV (mg/m³): 176

Maximum Hourly Emission Rate (lbs/hr): 28.31

Predicted 1-Hour Maximum Ground-Level
Concentration (ug/m³): 1679

MAGLC (ug/m³): 1762

Pollutant: N-Butyl Acrylate

TLV (mg/m³): 10

Maximum Hourly Emission Rate (lbs/hr): 0.660

Predicted 1-Hour Maximum Ground-Level
Concentration (ug/m³): 39.14

3 Sigma Corporation

PTI Application: 08-04712

Issue

Facility ID: 0855140498

Emissions Unit ID: **K003**

MAGLC (ug/m3): 105

Pollutant: Vinyl Acetate

TLV (mg/m3): 35

Maximum Hourly Emission Rate (lbs/hr): 3.342

Predicted 1-Hour Maximum Ground-Level
Concentration (ug/m3): 198.18

MAGLC (ug/m3): 352

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 still 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.
- 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

Issued: To be entered upon final issuance

permit to install prior to the change.

4. 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".
 - c. Where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

D. Reporting Requirements

1. The permittee shall submit annual reports which specify the VOC emissions, in tons, from all emissions unit. The permittee shall also submit annual reports which specify the individual HAP and total combined HAP emissions, in tons, from all emissions units at the facility. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.
2. The permittee shall submit quarterly deviation (excursion) reports that include the following:
 - a. An identification of each month during which the rolling, 12-month volatile organic material usage and/or VOC emissions exceeded the 70.13 TPY rolling, 12-month facility volatile organic material usage and/or VOC emission limitations, and the actual rolling, 12-month volatile organic material usage and/or VOC emission rates for each such month.
 - b. An identification of each month during which the rolling, 12-month individual facility HAP emission rate exceeded the 9.9 TPY rolling, 12-month individual facility HAP emission limitation, and the actual rolling, 12-month individual facility HAP emission rate for each such month.
 - c. An identification of each month during which the rolling, 12-month combined facility HAP emission rate exceeded the 24.9 TPY rolling, 12-month combined facility HAP emission limitation, and the actual rolling, 12-month combined

3 Sigma Corporation
PTI Application: 08-04712
Issue

Facility ID: 0855140498

Emissions Unit ID: K003

facility HAP emission rate for each such month.

- d. Any monthly record showing the use of noncomplying coatings pursuant to the requirements in 40 CFR Part 60, Subpart RR.

These quarterly deviation reports shall be submitted by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarter.

3. Pursuant to reporting requirements in OAC rule 3745-21-09(B), the permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of noncomplying coatings. 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 following the end of the calendar month.

**3 Sign
PTI A**Emissions Unit ID: **K003****Issued: To be entered upon final issuance****E. Testing Requirements**

1. Compliance with the specified emission limitations in Section A.1. of this permit shall be demonstrated in accordance with the following methods:
 - a. Emission Limitation -
The VOC emissions from this emissions unit shall not exceed 1.89 pounds per hour, excluding cleanup

Applicable Compliance Method -
Compliance shall be determined by multiplying the maximum hourly coating usage rate (13.5 gals ctg) by the maximum VOC content (0.14 lbs VOC/gal ctg).
 - b. Emission Limitation -
The VOC from this emissions unit shall not exceed 8.28 tons VOC per rolling 12-month summation, including cleanup

Applicable Compliance Method -
Compliance shall be based upon the record keeping requirements specified in Section C.1. of this permit.
 - c. Emission Limitation -
The individual HAP from this emissions unit shall not exceed 9.9 TPY of an individual HAP, based on a 12-month rolling summation

Applicable Compliance Method
Compliance shall be based upon the record keeping requirements specified in Section C.1. of this permit.
 - d. Emission Limitation-
The combined HAP from this emissions unit shall not exceed 24.9 TPY of any combination of HAPs, based on a 12-month rolling summation

Applicable Compliance Method
Compliance shall be based upon the record keeping requirements specified in Section C.1. of this permit.
 - e. Emission Limitation-
The VOC content shall not exceed 2.9 lbs VOC/gallon of coating, excluding water and exempt solvents, when operating without the use of a control system.

3 Sign

PTI A

Emissions Unit ID: **K003**

Issued: To be entered upon final issuance

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements specified in Section C.2. of this permit.

**3 Sign
PTI A**

Emissions Unit ID: **K003**

Issued: To be entered upon final issuance

- f. Emission Limitation-
The VOC shall not exceed 0.20 kg/kg of coating solids as calculated on a weighted average basis for each calendar month, when operating without the use of a control system.

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements specified in Section C.2. of this permit.

F. Miscellaneous Requirements

- 1. The following terms and conditions are federally enforceable: Sections A.1 (only the requirements associated with OAC 3745-35-07(B) and 40 CFR Part 60, Subpart RR), B.1 and 2, C.1 and 2., D.1 and 2, E.1.c and d.

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>
K004 - No. 120 Coater	OAC rule 3745-31-05(A)(3)
	OAC rule 3745-21-09(F)
	40 CFR Part 60, Subpart RR
	OAC rule 3745-31-05(C) OAC rule 3745-35-07(B) (synthetic minor to avoid PSD and Title V)

3 Sign**PTI A**Emissions Unit ID: **K004****Issued: To be entered upon final issuance**Applicable Emissions
Limitations/Control Measures

The volatile organic compound (VOC) emissions from this emissions unit shall not exceed 1.89 pounds per hour (lbs/hr), excluding cleanup.

The VOC emissions from this emissions unit shall not exceed 8.28 tons per rolling 12 month summation, including cleanup.

See A.2.a, B.1., and B.2.

The requirements of this rule shall also include compliance with the requirements of OAC rules 3745-31-05(C), 3745-35-07(B), 3745-21-09(F) 3745-21-09(B)(6) and 40 CFR Part 60, Subpart RR.

The total allowable emissions of VOC from emissions units K002, K003, K004, K005, K006, and K007 shall not exceed 70.13 tons per rolling 12 month summation, including cleanup.

The total allowable emissions of individual hazardous air pollutant (HAP) emissions from emissions units K002, K003, K004, K005, K006, and K007 shall not exceed 9.9 tons per rolling 12 month summation, including cleanup.

The total allowable emissions of combined hazardous air pollutant (HAP) emissions from emissions units K002, K003, K004, K005, K006, and K007 shall not exceed 24.9 tons per rolling 12 month summation, including cleanup.

The VOC content shall not exceed 2.9 lbs volatile organic compounds (VOC)/gallon of coating, excluding water and exempt solvents.

The VOC content shall not exceed 0.2 kilogram (kg)/kg of coating solids as calculated on a weighted average basis for each calendar month.

**3 Sign
PTI A**Emissions Unit ID: **K004****Issued: To be entered upon final issuance****2. Additional Terms and Conditions**

- 2.a** The 1.89 pounds VOC per hour emission limit was established for PTI purposes to reflect the potential to emit for the emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limitation.

B. Operational Restrictions

1. The maximum annual volatile organic material usage for emission units K002, K003, K004, K005, K006 and K007 shall not exceed 70.13 tons per year, based upon a rolling, 12-month summation of the monthly volatile organic material usage figures from a combination of coatings and cleanup. The annual volatile organic material usage in this term equates to the annual VOC emission rate in term A.1 based upon the premise that 100% of all the solvents contained within the material usage is emitted and therefore all the record keeping and reporting requirements of this permit for the VOC emissions will be sufficient to verify the annual volatile organic material usage rate of this term.

To ensure enforceability during the first twelve calendar months of operation following the issuance of this permit, the actual volatile organic material usage records over the previous 12 calendar months of operation shall be used to calculate the rolling, 12-month summation from the facility.

2. The maximum annual HAPs material usage for emission units K002, K003, K004, K005, K006 and K007 shall not exceed 9.9 tons per year for any individual HAP and 24.9 tons per year for any combination of HAPs, based upon a rolling, 12-month summation of the monthly HAPs material usage figures from a combination of coatings and cleanup.

To ensure enforceability during the first twelve calendar months of operation following the issuance of this permit, the actual individual and combined HAPs material usage records over the previous 12 calendar months of operation shall be used to calculate the rolling, 12-month summation from the facility.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information for each month that this emissions unit is operating:
- a. The name and identification of each surface coating and cleanup material employed.

- b. The number of gallons of each surface coating and cleanup material employed.
- c. The weight, in pound per month, of each surface coating and cleanup material employed, as applied.
- d. The VOC content for each surface coating and cleanup material employed, in pounds per gallon.
- e. The VOC content for each surface coating and cleanup material, as applied, in percent by weight.
- f. The VOC content of each surface coating employed, in pounds per gallon (excluding water and exempt solvents).
- g. The individual HAP content for each surface coating and cleanup material employed, in pounds per gallon.
- h. The combined HAP content for each surface coating and cleanup material employed, in pounds per gallon.
- i. The total volatile organic material usage from all surface coating and cleanup material, in pounds.
- j. The VOC emission rate from each surface coating and cleanup material employed (b x d), in pounds.
- k. The individual HAP emission rate from each surface coating and cleanup material employed (b x g), in pounds.
- l. The combined HAP emission rate from each surface coating and cleanup material employed (b x h), in pounds.
- m. The total VOC emissions from all coatings and cleanup materials employed, in pounds.
- n. The total individual HAP emissions from all coatings and cleanup material employed, in pounds.
- o. The total combined HAP emissions from all coatings and cleanup material employed, in pounds.

Issued: To be entered upon final issuance

- p. The rolling, 12-month summation of the volatile organic material usage from all surface coating and cleanup materials.
 - q. The rolling, 12-month summation of the VOC emissions from this emissions unit, in tons, i.e., the summation of (m) for the previous 12-month period divided by 2000 lbs/ton.
 - r. The rolling, 12-month summation of the individual HAP emissions from this emissions unit, in tons, i.e., the summation of (n) for the previous 12-month period divided by 2000 lbs/ton.
 - s. The rolling, 12-month summation of the combined HAP emissions from this emissions unit, in tons, i.e., the summation of (o) for the previous 12-month period divided by 2000 lbs/ton.
2. The permittee shall collect and record the following information for each month that this emissions unit is operating:
- a. The company identification of each surface coating employed.
 - b. The number of gallons of each surface coating employed.
 - c. The VOC content for each surface coating employed, in pounds per gallon.
 - d. The VOC content for each surface coating employed, in pounds per gallon, excluding water and exempt solvents.
 - e. The VOC content for each surface coating employed, in kilograms per gallon ((c.)/2.20 lbs/kg).
 - f. The total mass of VOC applied, in kilograms (the sum of (e) x (b) for all coatings applied).

3 Sign
PTI A

Emissions Unit ID: **K004**

Issued: To be entered upon final issuance

- g. The solids content for each surface coating employed, in pounds per gallon.
 - h. The solids content for each surface coating employed, in pounds per gallon kilograms per gallon ((g.)/2.20 lbs/kg).
 - i. The total mass of solids applied, in kilograms (the sum of the product (h) x (b) for all coatings applied).
 - j. The VOC emissions, in kg VOC/kg solids ((f)/(i)).
3. The permit to install for this emissions unit K004 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 applications, for K002, K003, K004, K005, K006 and K007. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Hexane

TLV (mg/m³): 176

Maximum Hourly Emission Rate (lbs/hr): 28.31

Predicted 1-Hour Maximum Ground-Level
Concentration (ug/m³): 1679

MAGLC (ug/m³): 1762

Pollutant: N-Butyl Acrylate

TLV (mg/m³): 10

Maximum Hourly Emission Rate (lbs/hr): 0.660

Predicted 1-Hour Maximum Ground-Level
Concentration (ug/m³): 39.14

MAGLC (ug/m3): 105

Pollutant: Vinyl Acetate

TLV (mg/m3): 35

Maximum Hourly Emission Rate (lbs/hr): 3.342

Predicted 1-Hour Maximum Ground-Level
Concentration (ug/m3): 198.18

MAGLC (ug/m3): 352

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 still 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.
- 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

Issued: To be entered upon final issuance

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.

4. 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".
 - c. Where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

D. Reporting Requirements

1. The permittee shall submit annual reports which specify the VOC emissions, in tons, from all emissions unit. The permittee shall also submit annual reports which specify the individual HAP and total combined HAP emissions, in tons, from all emissions units at the facility. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.
2. The permittee shall submit quarterly deviation (excursion) reports that include the following:
 - a. An identification of each month during which the rolling, 12-month volatile organic material usage and/or VOC emissions exceeded the 70.13 TPY rolling, 12-month facility volatile organic material usage and/or VOC emission limitations, and the actual rolling, 12-month volatile organic material usage and/or VOC emission rates for each such month.
 - b. An identification of each month during which the rolling, 12-month individual facility HAP emission rate exceeded the 9.9 TPY rolling, 12-month individual facility HAP emission limitation, and the actual rolling, 12-month individual facility HAP emission rate for each such month.

3 Sigma Corporation
PTI Application: 08-04712
Issue

Facility ID: 0855140498

Emissions Unit ID: K004

- c. An identification of each month during which the rolling, 12-month combined facility HAP emission rate exceeded the 24.9 TPY rolling, 12-month combined facility HAP emission limitation, and the actual rolling, 12-month combined facility HAP emission rate for each such month.
- d. Any monthly record showing the use of noncomplying coatings pursuant to the requirements in 40 CFR Part 60, Subpart RR.

These quarterly deviation reports shall be submitted by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarter.

3. Pursuant to reporting requirements in OAC rule 3745-21-09(B), the permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of noncomplying coatings. 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 following the end of the calendar month.

**3 Sign
PTI A**Emissions Unit ID: **K004****Issued: To be entered upon final issuance****E. Testing Requirements**

1. Compliance with the specified emission limitations in Section A.1. of this permit shall be demonstrated in accordance with the following methods:
 - a. Emission Limitation -
The VOC emissions from this emissions unit shall not exceed 1.89 pounds per hour, excluding cleanup

Applicable Compliance Method -
Compliance shall be determined by multiplying the maximum hourly coating usage rate (53 gals ctg) by the maximum VOC content (0.14 lbs VOC/gal ctg).
 - b. Emission Limitation -
The VOC emissions from this emissions unit shall not exceed 8.28 tons VOC per rolling 12-month summation, including cleanup

Applicable Compliance Method -
Compliance shall be based upon the record keeping requirements specified in Section C.1. of this permit.
 - c. Emission Limitation -
The individual HAP emissions from this emissions unit shall not exceed 9.9 TPY of an individual HAP, based on a 12-month rolling summation

Applicable Compliance Method
Compliance shall be based upon the record keeping requirements specified in Section C.1. of this permit.
 - d. Emission Limitation-
The combined HAP emissions from this emission unit shall not exceed 24.9 TPY of any combination of HAPs, based on a 12-month rolling summation

Applicable Compliance Method
Compliance shall be based upon the record keeping requirements specified in Section C.1. of this permit.
 - e. Emission Limitation-
The VOC content shall not exceed 2.9 lbs VOC/gallon of coating, excluding water and exempt solvents, when operating without the use of a control system.

3 Sign
PTI A

Emissions Unit ID: **K004**

Issued: To be entered upon final issuance

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements specified in Section C.2. of this permit.

**3 Sign
PTI A**

Emissions Unit ID: **K004**

Issued: To be entered upon final issuance

- f. Emission Limitation-
The VOC shall not exceed 0.20 kg/kg of coating solids as calculated on a weighted average basis for each calendar month, when operating without the use of a control system.

Applicable Compliance Method

Compliance shall be based upon the record keeping requirements specified in Section C.2. of this permit.

F. Miscellaneous Requirements

- 1. The following terms and conditions are federally enforceable: Sections A.1 (only the requirements associated with OAC 3745-35-07(B) and 40 CFR Part 60, Subpart RR), B.1 and 2, C.1 and 2., D.1 and 2, E.1.c and d.