



State of Ohio Environmental Protection Agency

K001-K003 (K001+2 med, K003 Initial)

STREET ADDRESS:

1800 WaterMark Drive  
Columbus, OH 43215-1099

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

MAILING ADDRESS:

P.O. Box 1049  
Columbus, OH 43216-1049

Re: Permit to Install  
Defiance County  
Application No: 03-9989  
TOXIC REVIEW  
SYNTHETIC MINOR

CERTIFIED MAIL

March 19, 1997

KOESTER METALS, INC.  
GARY KOESTER  
1441 QUALITY DRIVE  
DEFIANCE, OH 43512

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions I urge you to read it carefully.

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.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Board of Review pursuant to Chapter 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed with the Environmental Board of Review within thirty (30) days after notice of the Director's action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Board. An appeal may be filed with the Environmental Board of Review at the following address:

Environmental Board of Review  
236 East Town Street, Room 300  
Columbus, Ohio 43215

Very truly yours,

Thomas G. Rigo, Manager  
Field Operations & Permit Section  
Division of Air Pollution Control

cc: US EPA  
NORTHWEST DISTRICT OFFICE, DAPC

George V. Voinovich, Governor  
Nancy P. Hollister, Lt. Governor  
Donald R. Schregardus, Director



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## Permit to Install Terms and Conditions

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Application No. 03-9989  
APS Premise No. 0320010026  
Permit Fee: \$600.00

Name of Facility: KOESTER METALS, INC.

Person to Contact: GARY KOESTER

Address: 1441 QUALITY DRIVE  
DEFIANCE, OH 43512

Location of proposed source(s): 1441 QUALITY DRIVE  
DEFIANCE, OHIO

Description of proposed source(s):  
HVLV PAINT COATING LINE WITH FILTERS AND OVEN; MODIFICATION  
TO EMISSIONS UNITS K001 AND K002.

Date of Issuance: March 19, 1997

Effective Date: March 19, 1997

The above named entity is hereby granted a permit to install for the above described source(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 source(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 source(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

*Donald R. Schreyer*

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Director

**TERMINATION OF PERMIT TO INSTALL**

Substantial construction for installation must take place within 18 months of the effective date of this permit. 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.

**NOTICE OF INSPECTION**

The Director of the Ohio Environmental Protection Agency, or his authorized representatives, may enter upon the premises of the above-named applicant during construction and operation at any reasonable time for the purpose of making inspections, conducting tests, or to examine records or reports pertaining to the construction, modification or installation of the source(s) of environmental pollutants identified within this permit.

**CONSTRUCTION OF NEW SOURCES**

The proposed source(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 are inadequate or cannot meet applicable standards.

If the construction of the proposed source(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 Ohio Administrative Code (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)

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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 applicable standards.

#### PERMIT TO INSTALL FEE

In accordance with Ohio Revised Code 3745.11, the specified Permit to Install fee must be remitted within 30 days of the effective date of this permit to install.

#### 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.

#### APPLICABILITY

This Permit to Install is applicable only to the contaminant sources identified. Separate application must be made to the Director for the installation or modification of any other contaminant sources.

#### 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.

#### PERMIT TO OPERATE APPLICATION

A Permit to Operate application must be submitted to the appropriate field office for each air contaminant source in this Permit to Install. In accordance with OAC Rule 3745-35-02, the application shall be filed no later than thirty days after commencement of operation.

#### SOURCE OPERATION 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 and regulations.

AIR EMISSION SUMMARY

The air contaminant sources listed below comprise the Permit to Install for KOESTER METALS, INC. located in Defiance County. The sources listed below shall not exceed the emission limits/control requirements contained in the table. This condition in no way limits the applicability of any other state or federal regulations. Additionally, this condition does not limit the applicability of additional special terms and conditions of this permit.

<u>Ohio EPA Source Number</u>	<u>Source Identification Description</u>	<u>BAT Determination</u>	<u>Applicable Federal &amp; OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
K001 (Modification)	HVLP paint coating line with filters and oven; Paint Booth #1	Use of paint booth filter system and compliance with the terms and conditions of this permit	3745-31-05 3745-21-09 (U) (1) (d) 3745-17-07 3745-17-11	3.5 lbs VOC/gal coating, excluding water and exempt solvents; 21.00 lbs VOC/hr from coatings; 0.551 lb PM/hr; Opacity Restrictions (see Additional Special Terms and Conditions)
K002 (Modification)	HVLP paint coating line with filters; Paint Booth #2	Use of paint booth filter system and compliance with the terms and conditions of this permit	3745-31-05 3745-21-09 (U) (1) (d) 3745-17-07 3745-17-11	3.5 lbs VOC/gal coating, excluding water and exempt solvents; 10.50 lbs VOC/hr from coatings; 0.551 lb PM/hr; Opacity Restrictions (see Additional Special Terms and Conditions)
K003	HVLP paint coating line with filters and oven; Paint Booth #3	Use of paint booth filter system and compliance with the terms and conditions of this permit	3745-31-05 3745-21-09 (U) (1) (d) 3745-17-07 3745-17-11	3.5 lbs VOC/gal coating, excluding water and exempt solvents; 21.00 lbs VOC/hr from coatings; 0.551 lb PM/hr; Opacity Restrictions (see Additional Special Terms and Conditions)

**SUMMARY**

**TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS**

<u>Pollutant</u>	<u>Tons/Year</u>
VOC	25.00*
PM	7.23

\* VOC TPY emissions limit is for entire facility, see Additional Special Terms and Conditions.

**RECORD(S) RETENTION AND AVAILABILITY**

All records required by this Permit to Install shall be retained on file for a period of not less than three years unless otherwise indicated by Ohio Environmental Protection Agency. All records shall be made available to the Director, or any representative of the Director, for review during normal business hours.

**REPORTING REQUIREMENTS**

Unless otherwise specified, reports required by the Permit to Install need only be submitted to OEPA Northwest District Office - DAPC, 347 North Dunbridge Road, Bowling Green, Ohio 43402.

**WASTE DISPOSAL**

The owner/operator shall comply with any applicable state and federal requirements governing the storage, treatment, transport and disposal of any waste material generated by the operation of the sources.

**MAINTENANCE OF EQUIPMENT**

This source and its associated air pollution control system(s) shall be maintained regularly in accordance with good engineering practices and the recommendations of the respective manufacturers in order to minimize air contaminant emissions.

**MALFUNCTION/ABATEMENT**

In accordance with OAC RULE 3745-15-06, any malfunction of the source(s) or associated air pollution control system(s) shall be reported immediately to the OEPA Northwest District Office - DAPC, 347 North Dunbridge Road, Bowling Green, Ohio 43402.

Except as provided by OAC Rule 3745-15-06(A)(3), scheduled maintenance of air pollution control equipment that requires the shutdown or bypassing of air pollution control system(s) must be

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accompanied by the shutdown of the associated air pollution sources.

#### AIR POLLUTION NUISANCES PROHIBITED

The air contaminant source(s) identified in this permit may not cause a public nuisance in violation of OAC Rule 3745-15-07.

#### 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.

#### ADDITIONAL SPECIAL TERMS AND CONDITIONS

##### Introduction

1. With PTI application 03-9989 Koester Metals, Inc. has requested federally enforceable limits be established in this PTI to avoid the requirements of Title V of the Clean Air Act. The additional restrictions being requested are to limit the amount of volatile organic compound (VOC) emissions from the facility to less than 25.0 tons per year, and hazardous air pollutant emissions (HAP's) to less than 10.0 tons per year of any one HAP and less than 25.0 tons per year of any two or more HAPs for emissions units K001-K003. Emissions units K001-K003 are the only sources of VOC emissions at the facility.
2. Emissions units K001 and K002 already have limits established through PTI's 03-6048 and 03-8408. The limits established in this PTI for these two units will supersede the emissions limits previously established.

##### A. Applicable Emission Limitations and/or Control Requirements

1. Volatile organic compound (VOC) emissions from coatings employed in emissions unit K003 shall not exceed 3.5 pounds of VOC per gallon of coating, excluding water and exempt solvents.
2. VOC emissions from emissions units K001-K003 shall not exceed the following levels:
  - a. VOC emissions from the application of coatings in emissions unit K001, shall not exceed 21.00 pounds/hour;

- b. VOC emissions from the application of coatings in emissions unit K002 shall not exceed 10.50 pounds/hour; and
  - c. VOC emissions from the application of coatings in emissions unit K003, shall not exceed 21.00 pounds/hour.
3. Total facility emissions from coating and cleanup operations shall not exceed the following levels:
- a. 25.0 tons per rolling 12 month period VOC emissions;
  - b. less than 10.0 tons per rolling 12 month period of any single HAP, and
  - c. less than 25.0 tons per rolling 12 month period of any combination of HAP's.
4. In order to ensure federal enforceability during the first twelve months of operation under this permit, the total VOC and HAP emissions from emission units K001-K003 shall not exceed the following rates:

VOC

<u>Month(s)</u>	<u>Allowable Cumulative Total Emission Restrictions (Tons)</u>
1 MAR - APR	2
1-2 MAY - JUN	4
1-3 JUL - AUG	6
1-4 SEP - OCT	8
1-5 NOV - DEC	10
1-6 JAN - FEB	12
1-7 MAR - APR	14
1-8 MAY - JUN	16
1-9 JUL - AUG	18
1-10	20
1-11	20
1-12	25

Individual HAP

<u>Month(s)</u>	<u>Allowable Cumulative Total Emission Restrictions (Tons)</u>
1	1
1-2	2
1-3	3
1-4	4
1-5	5
1-6	6

Individual HAP

<u>Month(s)</u>	<u>Allowable Cumulative Total Emission Restrictions (Tons)</u>
1-7	7
1-8	8
1-9	9
1-10	<10
1-11	<10
1-12	<10

Combined HAP's

<u>Month(s)</u>	<u>Allowable Cumulative Total Emission Restrictions (Tons)</u>
1	2
1-2	4
1-3	6
1-4	8
1-5	10
1-6	12
1-7	14
1-8	16
1-9	18
1-10	<25
1-11	<25
1-12	<25

5. Particulate matter (PM) emissions from emissions units K001-K003 shall not exceed 0.551 lb/hr per emissions unit.
6. There shall be no visible PM emissions from emissions units K001-K003.

**B. Operational Restrictions**

1. This permit allows for the use of the coatings and cleanup materials specified by the permittee in PTI number 03-9989. In conjunction with the best available technology requirements of OAC rule 3745-31-05, the VOC emission limitations specified in this permit were established in accordance with Ohio EPA's "Air Toxics Policy" and are based on both the coating and cleanup material formulation data and the design parameters of the emissions unit's exhaust system, as specified in the application. Compliance with Ohio EPA's "Air Toxics Policy" was demonstrated for each pollutant based on the Screen 2 model and a comparison of the predicted 1 hour maximum ground level concentration to the MAGLC. The

following table summarizes the results of the modeling for each pollutant:

<u>Pollutant</u>	<u>TLV (ug/m<sup>3</sup>)</u>	<u>Maximum Hourly Emission Rate (lbs/hr)</u>	<u>Predicted 1 Hour Maximum Ground-Level Concentration at the fence line (ug/m<sup>3</sup>)</u>	<u>Maximum Acceptable Ground- Level Concentration (MAGLC) (ug/m<sup>3</sup>)</u>
*Toluene	188,000	52.50*	287.4	4,480.0

\* Done using worst case scenario i.e., assumes all VOC emissions are Toluene which had the lowest TLV of all the compounds currently being utilized by the permittee and that all VOC emissions from the three emissions units are coming from one stack.

Any of the following changes may be deemed a "modification" to the emissions unit and, as such, prior notification to and approval from the Ohio EPA, Northwest District Office are required:

- a. any change in the composition of the coatings or cleanup materials, or the use of new coatings or cleanup 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 specified in the above table;
- b. any change to the emissions unit or its exhaust parameters (e.g., increased emission rate, reduction of exhaust gas flow rate, and decreased stack height) that would result in an exceedance of any MAGLC specified in the above table;
- c. a reduction in the TLV by the ACGIH for any of the coatings and cleanup materials that at the maximum hourly emission rate specified in the above table, would result in an exceedance of the MAGLC;
- d. any change to the emissions unit or its method of operation that would either require an increase in the emission limitation(s) established by this permit or would otherwise be considered a "modification" as defined in OAC rule 3745-31-01; and

- e. any change in the composition of the coatings or cleanup materials, or use of new coatings or cleanup materials, that would result in the emission of any of the exempted organic compounds included in the definition of "VOC" [OAC rule 3745-21-01(B)(6)].

**C. Monitoring and/or Recordkeeping Requirement**



1. The permittee shall collect and record the following information each month for the entire facility:

For coating operations:

- a. the name and identification number of each coating, as applied;
- b. the VOC content of each coating (excluding water and exempt solvents), as applied;
- c. the individual Hazardous Air Pollutant (HAP) content for each coating in pounds of individual HAP per gallon of coating, as applied;
- d. the total combined HAP content of each coating in pounds of combined HAPs per gallon of coating, as applied (sum all the individual HAP contents from c);
- e. the number of gallons (excluding water and exempt solvents) of each coating employed;
- f. the total amount of VOC emitted from each coating employed, in pounds or tons per month (b x e);
- g. the total amount of VOC emitted from all coatings employed, in pounds or tons per month (sum of f);
- h. the total individual HAP emissions from all coatings employed, in pounds or tons per month (the sum of c times e for each coating); and
- i. the total combined HAP emissions from all coatings, in pounds or tons per month (the sum of d times e for each coating).

For cleanup operations:

- j. the name and identification of each cleanup material employed;
- k. the VOC content of each cleanup material, in pounds per gallon;
- l. the individual HAP content of each cleanup material in pounds of individual HAP per gallon of cleanup material, as applied;

- m. the total combined HAP content of each cleanup material in pounds of combined HAPs per gallon of cleanup material, as applied (sum all the individual HAP contents from l);
- n. the total number of gallons of each cleanup material employed;
- o. the amount of VOC emitted from all cleanup materials employed, in pounds or tons per month;
- p. the total individual HAP emissions from all cleanup materials employed, in pounds or tons per month (the sum of l times n for each cleanup material); and
- q. the total combined HAP emissions from all cleanup materials employed, in pounds or tons per month (the sum of m times n for each cleanup material).

\* For combined coating and cleanup operations:

- r. the total VOC emissions from all coatings and cleanup materials employed, in pounds or tons per month (g plus o) and pounds or tons per rolling 12 month period (g plus o) for the current month with the emissions from the previous 11 calendar months;
- s. the total individual HAP emissions from all coatings and cleanup materials employed, in pounds or tons per month (h plus p for each HAP) and pounds or tons per rolling 12 month period (h plus p for each HAP for the current month with the emissions from the previous 11 calendar months); and
- t. the total combined HAP emissions from all coatings and cleanup materials employed, in pounds or tons per month (i plus q) and pounds or tons per rolling 12 month period (i plus q for the current month with the emissions from the previous 11 calendar months).

#### D. Reporting Requirement

- \* 1. The permittee shall notify the Director within 5 calendar days of any monthly record showing the use of noncompliant coatings or the exceedance of the emission limits established by this permit. A copy of such records shall be sent to the Director within 30 days following the end of the calendar month and shall include an explanation of the corrective action taken to bring the emissions unit(s) back into compliance.
- \* 2. The permittee shall submit an annual report which summarizes the information required by condition (C)(1)(r), (s), and (t) above. The report shall be

submitted by January 31 and shall contain the data from the previous calendar year.

**E. Testing Requirements**

1. Compliance Methods Requirements:

Compliance with the emission limitation(s) in Section A.1-6 of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitation:

3.5 lbs VOC/gallon coating, minus water and exempt solvents

Applicable Compliance Method:

Any determination of VOC content\*, solids content, or density of a coating and/or cleanup material shall be based on the coating/cleanup material as employed (as applied), including the addition of any thinner or viscosity reducer to the coating/cleanup material. The company shall determine the composition of the coatings/cleanup materials by formulation data supplied by the manufacturer of the coating/cleanup material or from data determined by an analysis of each coating/cleanup material, as received, by Reference Method 24. The Ohio EPA may require the company, if it uses formulation data supplied by the manufacturer, to determine data used in the calculation of the VOC content of coatings/cleanup materials by Reference Method 24 or an equivalent or alternative method.

\*"VOC content" means all volatile organic compounds that are in a coating/cleanup material expressed as pounds of VOC per gallon.

b. Emission Limitation for K001:

21.00 lbs VOC/hr

Applicable Compliance Method:

As long as maximum gallon usage (6.0 gal/hr) and VOC content of coatings used (3.5 lbs/gal) does not change, compliance with the VOC emissions limit of 21.00 lbs/hr will be maintained.

c. Emission Limitation for K002:

10.50 lbs VOC/hr

Applicable Compliance Method:

As long as maximum gallon usage (3.0 gal/hr) and VOC content of coatings used (3.5 lbs/gal) does not change, compliance with the VOC emissions limit of 10.50 lbs/hr will be maintained.

d. Emission Limitation for K003:

21.000 lbs VOC/hr

Applicable Compliance Method:

As long as maximum gallon usage (6 gal/hr) and VOC content of coatings used (3.5 lbs/gal) does not change, compliance with the VOC emissions limit of 21.00 lbs/hr will be maintained.

e. Emission Limitation:

25.0 TPY VOC for the entire facility

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with condition (C)(1)(r) above.

f. Emission Limitation:

<10 TPY individual HAP and <25 TPY of any combination of HAP's for the entire facility

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with conditions (C)(1)(s and t) above.

g. Emission Limitation:

0.551 lb particulate matter/hr

Applicable Compliance Method:

As long as maximum coating usage rates for K001-K003 are not exceeded, and as long as the control equipment for particulate matter (filters) is operating properly and in accordance with the manufacturer's specifications, compliance with the 0.551 lb particulate matter/hr limit for each coating line will be assumed to be maintained.

However, to determine the actual worst case emissions rate for particulate matter, the following equation shall be used:

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E = maximum coating solids usage rate in pounds per hour X (1-TE) X (1-CE)

E: Particulate matter emissions rate (lbs/hr)

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

CE: Control efficiency of the control equipment

h. Emission Limitation:

0% Opacity

Applicable Compliance Method:

Opacity shall be determined by U.S. EPA Method 9.

**F. Miscellaneous Requirements**

None.