

September 9, 2002

Mr. Alan R. Horner
Horner Electric
1521 East Washington Street
Indianapolis, Indiana 46201

Re: Registered Construction and Operation Status,
097-13827-00301

Dear Mr. Horner:

Horner Electric meets the requirements for issuance of a Registration, as defined in 326 IAC 2-5.5, the source no longer meets the applicability under 326 IAC 2-7-2. Horner Electric is requesting a revocation of its Part 70 permit because a Detrex Batch Vapor Trichloroethylene Degreaser, identified as Emission Unit #4 was shut down, tank drained, and heaters removed. Thus, the Title V Permit for that location is no longer required therefore the Part 70 permit T097-7787-00301, issued June 30, 1999, is rescinded. The application from Horner Electric, received on January 25, 2001, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.5, it has been determined that the following operation for rebuilding electrical industrial apparatus for motors and generators, to be located at 1521 East Washington Street, Indianapolis, Indiana is now classified as a Registration registered:

- (a) One (1) Paint Booth, identified as Emission Unit #6 (EU6), equipped with an air atomization spray coating gun, with a maximum capacity of 0.39 gal/hr, using dry filters as control, exhausting at one (1) stack identified as stack #3. Installed pre-1983. To be consistent with the TSD and the last modification made to the Title V permit, change Emission Unit #6 (EU6) to Emission Unit #17 (EU17)
- (b) One (1) Small Varnish Dip Tank, identified as emission unit #7 (EU7), maximum capacity of 1.0 lb/hr, exhausting at one (1) vent, identified as vent ID 7, with no control equipment, installed in 1987.
- (c) One (1) Large Varnish Dip Tank, identified as emission unit #8 (EU8), maximum capacity of 1.84 lb/hr, exhausting at one (1) vent, identified as vent ID 7, with no control equipment, installed pre-1983.
- (d) One (1) Large VPI Dip Tank, identified as emission unit #9 (EU9), maximum capacity of 2.08 lb/hr, not exhausting at a stack/vent, with no control equipment, installed in 1987.
- (e) One (1) Small VPI Dip Tank, identified as emission unit #10 (EU10), maximum capacity of 1.0 lb/hr, not exhausting at a stack/vent, with no control equipment, installed in 1996.
- (f) One (1) Bayco Burnout Oven, identified as Emission Unit #1 (EU1), rated at less than 10 MMBtu per hour, exhausting at one (1) stack, identified as stack ID 1, with no control equipment, installed pre-1983.
- (g) One (1) Steelman Burnout Oven, identified as Emission Unit #2 (EU2), rated at less than 10 MMBtu per hour, and exhausting at one (1) stack, identified as stack ID 2, with a thermal oxidizer for control, installed in 1995.

- (h) One (1) Universal Sandblaster, identified as Emission Unit #3 (EU3) , exhausting at one (1) vent identified as vent ID 7, with a baghouse for control, installed in 1994.
- (i) One (1) Steelman Bakeout Oven, identified as Emission Unit #11 (EU11), rated at less than 10 MMBtu per hour, and exhausting at one (1) stack, identified as stack ID 4, with no control, installed pre-1983.
- (j) One (1) Despatch Bakeout Oven, identified as Emission Unit #12 (EU12), rated at less than 10 MMBtu per hour, and exhausting at one (1) stack, identified as stack ID 5, with no control, installed in 1996.
- (k) One (1) Despatch Bakeout Oven, identified as Emission Unit #13 (EU13), rated at less than 10 MMBtu per hour, and exhausting at one (1) stack, identified as stack ID 6, with no control, installed pre-1983.
- (l) Three (3) small parts washers and two (2) small paint gun cleaning units, with no control, exhausting inside the building.

The following conditions shall be applicable:

1. Pursuant to IAPCB Regulation 2 (Permits) and 326 IAC 2-5.5-4 (Registration Content), an authorized individual shall provide an annual notice to the Office of Environmental Services and the Office of Air Quality that the source is in operation and in compliance with this Registration pursuant to state regulation 326 IAC 2-5.5-4(a)(3).
2. Pursuant to the requirements of 326 IAC 2-6, the permittee shall submit an annual emission statement that must be received by April 15 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4.

The annual emission statement covers the twelve (12) consecutive month time period starting December 1 and ending November 30. The annual emission statement must be submitted to:

**Compliance Data Section
Office of Air Quality
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015**

and

**Office of Environmental Services
Air Quality Management Section, Compliance Data Group
2700 South Belmont Avenue
Indianapolis, Indiana 46221-2097**

3. Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:
 - (a) Opacity shall not exceed an average of thirty percent (30%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.
4. Any change or modification to the facilities listed below which may increase the actuals before add-on controls shall obtain prior approval from the Environmental Resource Management Division (OES) and Office of Air Quality (OAQ). Current equipment operations are as follows:

- (a) Paint booths identified as, (EU#6), VOC actual emissions before add on controls of less than 15 pounds of VOC including coatings, dilution solvents, and cleaning solvents per day each;
- (b) Varnish Tanks identified as,(EU#7 and EU#8), VOC actual emissions before add-on controls of less than 15 pounds of VOC including coatings, dilution solvents, and cleaning solvents per day each;and
- (c) VPI Dip Tanks identified as, (EU#9 and EU#10), VOC actual emissions before add-on controls of less than 15 pounds of VOC including coatings, dilution solvents, and cleaning solvents per day each.

Compliance with this condition shall make the Miscellaneous Metal Parts Rule 326 IAC 8-2-9 not applicable.

5. To document compliance with the above condition, the Permittee shall maintain records in accordance with (1) and (2) below. Records maintained for (1) and (2) shall be taken daily and shall be complete and sufficient to establish compliance with the the VOC emission limits established in the above condition.

- (1) The weight of VOC containing material used, including purchase orders and invoices necessary to verify the type and amount used.
- (2) The VOC content (weight percent) of each material used

6. Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Process), the allowable particulate emission rate from the paint booth, bakeout ovens, burnout ovens, and sandblaster shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission of 0.55 pounds per hour; and} \\ P = \text{process weight rate of less than 100 pounds/hour}$$

7. Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), for cold cleaning operations constructed after January 1, 1980, the owner or operator shall:

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the operation requirements;
- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

Since the Permittee operates three small parts washers, then pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaner degreaser facility, construction of which commenced after July 1, 1990, shall ensure that the following control equipment requirements are met:

- (a) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
 - (b) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));
 - (c) The solvent is agitated; or
 - (d) The solvent is heated.
 - (e) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
 - (f) Provide a permanent, conspicuous label which lists the above operating requirements.
 - (g) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
 - (h) equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):
 - (1) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (2) A water cover when solvent is used is insoluble in, and heavier than, water.
 - (3) Other systems of demonstrated equivalent control such as a refrigerated chiller of carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision. -
8. Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility, construction of which commenced after July 1, 1990, shall ensure that the following operating requirements are met:
- (a) Close the cover whenever articles are not being handled in the degreaser.
 - (b) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
 - (c) Store waste solvent only in covered containers and prohibit the disposal or transfer of

waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

This registration is issued to this source. The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the Office of Air Quality, OAQ, and the City of Indianapolis, OES, that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.5-4(a)(3). The annual notice shall be submitted to:

**Compliance Data Section
Office of Air Quality
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015
and
Office of Environmental Services
Air Quality Management Section, Compliance Data Group
2700 South Belmont Avenue
Indianapolis, Indiana 46221-2097**

no later than March 1 of each year, with the annual notice being submitted in the format attached.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) and OES if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Original John B. Chavez
John B. Chavez, Administrator
Office of Environmental Services

WMW

cc: file (2 copies)
Mindy Hahn, IDEM

Registration Annual Notification

This form should be used to comply with the notification requirements under 326 IAC 2-5.5-4(a)(3)

Company Name: Horner Electric
Address: 1521 East Washington Street
City: Indianapolis
Authorized individual: Mr. Alan R. Horner
Phone #: (317) 639-4261
Registration #: 097-13827-00301

I hereby certify that Horner Electric is still in operation and is in compliance with the requirements of Registration 097-13827-00301.

Name (typed):
Title:
Signature:
Date:

**Indiana Department of Environmental Management
Office of Air Quality
and
City of Indianapolis
Indianapolis Office of Environmental Services**

Technical Support Document (TSD) for a Registration

Source Background and Description

Source Name: Horner Electric
Source Location: 1521 East Washington Street, Indianapolis, Indiana 46201
County: Marion
SIC Code: 3621
Operation Permit No.: 097-13827-00301
Permit Reviewer: Warner M. Waters

The City of Indianapolis Office of Environmental Services (OES), and the Office of Air Quality (OAQ) have reviewed an application from Horner Electric relating to the change in status of the operation of a facility for rebuilding electrical industrial apparatus for motors and generators.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

- (a) One (1) Paint Booth, identified as Emission Unit #17 (EU17), equipped with an air atomization spray coating gun, with a maximum capacity of 0.39 gal/hr, using dry filters as control, exhausting at one (1) stack identified as stack #3. Installed pre-1983.
- (b) One (1) Small Varnish Dip Tank, identified as emission unit #7 (EU7), maximum capacity of 1.0 lb/hr, exhausting at one (1) vent, identified as vent ID 7, with no control equipment, installed in 1987.
- (c) One (1) Large Varnish Dip Tank, identified as emission unit #8 (EU8), maximum capacity of 1.84 lb/hr, exhausting at one (1) vent, identified as vent ID 7, with no control equipment, installed pre-1983.
- (d) One (1) Large VPI Dip Tank, identified as emission unit #9 (EU9), maximum capacity of 2.08 lb/hr, not exhausting at a stack/vent, with no control equipment, installed in 1987.
- (e) One (1) Small VPI Dip Tank, identified as emission unit #10 (EU10), maximum capacity of 1.0 lb/hr, not exhausting at a stack/vent, with no control equipment, installed in 1996.
- (f) One (1) Bayco Burnout Oven, identified as Emission Unit #1 (EU1), rated at less than 10 MMBtu per hour, exhausting at one (1) stack, identified as stack ID 1, with no control equipment, installed pre-1983.
- (g) One (1) Steelman Burnout Oven, identified as Emission Unit #2 (EU2), rated at less than 10 MMBtu per hour, and exhausting at one (1) stack, identified as stack ID 2, with a thermal oxidizer for control, installed in 1995.

- (h) One (1) Universal Sandblaster, identified as Emission Unit #3 (EU3), exhausting at one (1) vent identified as vent ID 7, with a baghouse for control, installed in 1994.
- (i) One (1) Steelman Bakeout Oven, identified as Emission Unit #11 (EU11), rated at less than 10 MMBtu per hour, and exhausting at one (1) stack, identified as stack ID 4, with no control, installed pre-1983.
- (j) One (1) Despatch Bakeout Oven, identified as Emission Unit #12 (EU12), rated at less than 10 MMBtu per hour, and exhausting at one (1) stack, identified as stack ID 5, with no control, installed in 1996.
- (k) One (1) Despatch Bakeout Oven, identified as Emission Unit #13 (EU13), rated at less than 10 MMBtu per hour, and exhausting at one (1) stack, identified as stack ID 6, with no control, installed pre-1983.
- (l) Three (3) small parts washers and two (2) small paint gun cleaning units, with no control, exhausting inside the building.

There are no unpermitted facilities operating at this source during this review process.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

- (a) The source was issued a Part 70 Operating Permit T 097-7787-00301 on June 30, 1999.
- (b) The source was issued a Minor Source Modification T 097-12304-00301 on August 22, 2000.
- (c) The source was issued a Significant Permit Modification 097-12555-00301 on November 27, 2000.
- (d) The source was issued an Administrative Amendment 097-13396-00301 on March 7, 2002.

All conditions from previous approvals were incorporated into this permit except the following:

Horner Electric is currently operating under a Part 70 permit. Horner Electric meets the requirements for issuance of a Registration, as defined in 326 IAC 2-5. Horner Electric is requesting revocation of its Part 70 permit because a Detrex Batch Vapor Trichloroethylene Degreaser, identified as Emission Unit #4 was shut down, tank drained, and heaters removed. Thus, the Title V Permit for that location is no longer required. This Registration addresses the previously submitted applications 097-11344-00301 and 097-11474-00301. The applications will be incorporated into this Registration. The source shall operate under the terms of a Part 70 permit until the final Registration is issued by the Office of Environmental Services.

Enforcement Issues

Notice of Violation was issued on January 21, 2000, alleging that Horner Electric violated Indianapolis Air Pollution Control Board Regulation 2 "Permits", Section 2-1. Horner Electric was alleged to have failed to comply with the requirements of the Title V permit by not keeping records and not properly operating the permitted equipment.

Recommendation

The staff recommends to the Administrator that the operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the application October 12, 2001.

A complete application for the purposes of this review was received on January 25, 2001.

Emission Calculations

See pages 1 through 5 of 5 in Appendix A of this document for detailed emissions calculations.

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	*Potential To Emit (tons/year)
PM	4.54
PM-10	10.61
SO ₂	0.00
VOC	18.9
CO	0.00
NO _x	0.00

HAP's	*Potential To Emit (tons/year)
Xylene	.21
MEK	8.60
Toluene	1.34
Glycol Ethers	1.90
MIK	0.00
TOTAL	12.05

* Reflects re-examined calculations that are different from the original TSD

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2001 OAQ emission data.

Pollutant	Actual Emissions (tons/year)
PM	0.00
PM-10	0.00
SO ₂	0.00
VOC	1.103
CO	0.00
NO _x	0.00
Methyl Ethyl Ketone (MEK)	0.38
Methyl Isobutyl Ketone (MIK)	0.00
Toluene	0.01
Trichlorethane	0.00

Xylenes	0.046
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Limited Potential to Emit

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units.

Process/facility	Limited Potential to Emit						
	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
Paint Booth (EU17)	-	-	-	85 lbs/day	-	-	70 lbs/day
Varnish Tank (EU7)	-	-	-	<15lbs/day	-	-	<15lbs/day
Varnish Tank (EU8)	-	-	-	<15lbs/day	-	-	<15lbs/day
Large VPI Dip Tank (EU9)	-	-	-	<15lbs/day	-	-	-
Small VPI Dip Tank (EU10)	-	-	-	<15lbs/day	-	-	-
Universal Sandblaster (EU3)	24.91lbs/day	58.14 lbs/day	-	-	-	-	-

Potential to emit based on limiting VOC emissions to less than 15 lbs/day such that 326 IAC 8-2-9 shall not apply because all facilities were existing in Marion County as of or after July 1st, 1991.

County Attainment Status

The source is located in Marion County.

Pollutant	Status
PM-10	unclassifiable
SO ₂	maintenance attainment
NO ₂	attainment
Ozone	maintenance attainment
CO	attainment
Lead	unclassifiable

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Marion County has been designated as attainment or unclassifiable for ozone.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This source is no longer subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,

- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons/year.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP) (326 IAC 20 and 40 CFR Part 63) applicable to this source. 40 CFR 63.460 (Subpart T) does not apply since none of the solvents listed for Subpart T applicability are used by the source. The source stated in a letter dated April 19, 2001 that the degreaser was permanently shut down on December 6, 2000.

State Rule Applicability-Entire Source

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than ten (10) tons per year of VOC and is located in Marion County. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by April 15th of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

326 IAC 5-1(Opacity Limitations)

The Opacity regulation 326 IAC 5-1 is generally applicable to all point sources of emissions. Since the source is located in Marion County, and is not located in the areas of Marion County referred to in 326 IAC 5-1-5, pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of thirty percent (30%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 6-1 (Particulate Emissions Limitations)

Marion County is listed under 326 IAC 6-1-1. However, the source or facility is not specifically listed in sections 8.1 through 18 of this rule, and does not have the potential to emit one hundred (100) tons or more, and have actual emissions of ten (10) tons or more, of particulate matter per year. Therefore, 326 IAC 6-1, as amended on January 10, 2002 does not apply.

326 IAC 6-3-2 (Process Operations)

The particulate matter (PM) from the paint booth, bakeout ovens, burnout ovens, and sandblaster shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission of 0.551 pounds per hour; and} \\ P = \text{process weight rate of less than 100 pounds/hour}$$

The dry filters shall be in operation at all times the paint booth is in operation, in order to comply with this limit. The baghouse shall be in operation at all times the sandblaster is in operation, in order to comply with this limit.

326 IAC 8-2-9 (Miscellaneous Metal Coating)

Any change or modification to the facilities listed below which may increase the actuals before add-on controls shall obtain prior approval from the Office of Environmental Services (OES) and Office of Air Quality (OAQ). Current equipment operations are as follows:

- (a) Paint booth identified as, (EU#17), VOC actual emissions before add on controls of less than 15 pounds of VOC per day each;
- (b) Varnish Tanks identified as, (EU#7 and EU#8), VOC actual emissions before add-on controls of less than 15 pounds of VOC per day each; and
- (c) VPI Dip Tanks identified as, (EU#9 and EU#10), VOC actual emissions before add-on controls of less than 15 pounds of VOC per day each.

Compliance with this condition shall make the Miscellaneous Metal Parts Rule 326 IAC 8-2-9 not applicable.

326 IAC 8-3-2 Cold cleaner operation

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), the owner or operator shall:

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the operation requirements;
- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

326 IAC 8-3-5 Cold cleaner degreaser operation and control

- (a) The owner or operator of a cold cleaner degreaser facility shall ensure that the following control equipment requirements are met:
 - (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
 - (A) the solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF));
 - (B) the solvent is agitated; or
 - (C) the solvent is heated.
 - (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
 - (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
 - (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
 - (5) Equip the degreaser with one (1) of the following control devices if the solvent

volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9EC) (one hundred twenty degrees Fahrenheit (120EF)):

- (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (B) A water cover when solvent used is insoluble in, and heavier than, water.
 - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) The owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:
- (1) Close the cover whenever articles are not being handled in the degreaser.
 - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
 - (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

Conclusion

The operation of rebuilding electrical industrial apparatus for motors and generators shall be subject to the conditions of the attached proposed Registration No. 097-13827-00301.

**Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations**

Company Name: Horner Electric
Address City IN Zip: 1521 East Washington Street, Indianapolis, Indiana 46201
Permit No.: T097-7787-00301
Vent ID: Emission Unit #17 (EU17)
Reviewer: W. Waters
Date: August, 2002

SIC: 3621

Material	Density (Lb/Gal)	Weight % Volatile (H2O& Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Vol (solids)	Gal of Mat (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential ton/yr	lb VOC /gal solids	Transfer Efficiency
Heresite EP-6300	9.20	39.0%	0.0%	39.0%	0.0%	49.7%	0.0970	4.00	3.59	3.59	1.39	33.41	6.10	2.38	7.22	75%
Elite Water Based	9.60	55.0%	49.0%	6.0%	56.4%	33.0%	0.0970	4.00	0.58	0.58	0.22	5.40	0.99	1.84	1.76	75%
Heresite S-330 Solvent	6.71	100.0%	0.0%	100.0%	0.0%	7.0%	0.0485	4.00	5.85	6.71	1.30	31.24	5.70	0.00	95.86	75%

State Potential Emissions based upon worst case coating, maximum units per hour and 8,760 hours/yr. **2.92 70.05 12.78 4.22**
(1) Data from Mfr's sheet

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) * (8760 hrs/yr) * (1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

Transfer efficiency was estimated at 75% for flat surface work and electrostatic air atomized, per "Air Pollution Engineering Manual" (AP-40), Table 2, page 362, 1992 edition.

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Appendix A: Emissions Calculations
HAP Emission Calculations
From Surface Coating Operations

Company Name: Horner Electric
Address City IN Zip: 1521 East Washington Street, Indianapolis, Indiana 46201
Permit No.: T097-7787-00301
Vent ID: Emission Unit #17 (EU17)
Reviewer: W. Waters
Date: August, 2002

Material	Density (Lb/Gal)	Gal of Mat (gal/unit)	Maximum (unit/hour)	Weight % 2-Butoxyethanol (glycol ether)	Weight % Methyl Ethyl Ketone	Weight % Glycol Ethers	Weight % Toluene	Weight % Xylene	Weight % Methyl Isobutyl Ketone	Weight % Benzene	Weight % Ethylbenzene	2-Butoxyethonal (ton/yr) (glycol ether)	Methyl Ethyl Ketone (ton/yr)	Glycol Ethers (ton/yr)	Xylene (ton/yr)	Methyl Isobutyl Ketone (ton/yr)	Total Potential per coating (tons/yr)
Heresite EP-6300 Coating	9.2	0.0970	4.00	0.0%	18.6%	12.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00	2.91	1.91	0.00	0.00	4.82
Elite Water Based Primer	9.6	0.0970	4.00	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
Heresite S-330 Solvent	6.71	0.0485	4.00	0.0%	99.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00	5.69	0.00	0.00	0.00	5.69
												0.00	8.60	1.91	0.00	0.00	10.51

* Determine Potential HAPs at Limited PTE: 249 tons VOC/yr x yr/292.31 tons VOC x 32.6 ton HAP = 27.77 tons HAP
State Potential Emissions based upon worst case HAP loading and 8,760 hr/yr.

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

Abrasive Blasting

Company Name: Horner Electric
Address City IN Zip: 1521 East Washington Street Indianapolis, Indiana 46201
Reviewer: W. Waters
Date: August, 2002

Table 1 - Emission Factors for Abrasives

Abrasive	Emission Factor	
	PM / lb abrasive	PM10 / lb PM
Sand	0.041	0.70
Grit	0.010	0.70
Steel Shot	0.004	0.86
Other	0.010	

Table 2 - Density of Abrasives (lb/ft3)

Abrasive	Density (lb/ft3)
Al oxides	160
Sand	99
Steel	487

Table 3 - Sand Flow Rate (FR1) Through Nozzle (lb/hr)

Flow rate of Sand Through a Blasting Nozzle as a Function of Nozzle pressure and Internal Diameter

Internal diame	Nozzle Pressure (psig)							
	30	40	50	60	70	80	90	100
1/8	28	35	42	49	55	63	70	77
3/16	65	80	94	107	122	135	149	165
1/4	109	138	168	195	221	255	280	309
5/16	205	247	292	354	377	420	462	507
3/8	285	355	417	477	540	600	657	720
7/16	385	472	560	645	755	820	905	940
1/2	503	615	725	835	945	1050	1160	1265
5/8	820	990	1170	1336	1510	1680	1850	2030
3/4	1140	1420	1670	1915	2160	2400	2630	2880
1	2030	2460	2900	3340	3780	4200	4640	5060

Calculations

Adjusting Flow Rates for Different Abrasives and Nozzle Diameters

Flow Rate (FR) = Abrasive flow rate (lb/hr) with internal nozzle diameter (ID)

FR1 = Sand flow rate (lb/hr) with internal nozzle diameter (ID1) From Table 3 =

D = Density of abrasive (lb/ft3) From Table 2 =

D1 = Density of sand (lb/ft3) =

ID = Actual nozzle internal diameter (in) =

ID1 = Nozzle internal diameter (in) from Table 3 =

221
155
99
0.25
0.25

Flow Rate (FR) (lb/hr) = 346.010 per nozzle

Uncontrolled Emissions (E, lb/hr)

EF = emission factor (lb PM/ lb abrasive) From Table 1 =

FR = Flow Rate (lb/hr) =

w = fraction of time of wet blasting =

N = number of nozzles =

0.010
346.010
0 %
1

Uncontrolled Emissions =	3.46 lb/hr
	15.16 ton/yr

METHODOLOGY

Emission Factors from Stappa Alapco, Section 3 "Abrasive Blasting"

Ton/yr = lb/hr X 8760 hr/yr X ton/2000 lbs

Flow Rate (FR) (lb/hr) = FR1 x (ID/ID1)2 x (D/D1)

E = EF x FR x (1-w/200) x N

w should be entered in as a whole number (if w is 50%, enter 50)

EU 7 - Varnish Tank #1

	lb VOC/gallon	gallons/year	lb VOC/year	ton VOC/year	ton HAP/year
Thermopoxy	4.42	220	972	0.49	
Xylene	7.18	57	272.8	0.14	0.14
Totals		277	1244.8	0.63	0.14

EU 8 - Varnish Tank #2

	lb VOC/gallon	gallons/year	lb VOC/year	ton VOC/year	ton HAP/year
Sterling	3.59	110	395	0.2	
Xylene	7.18	19	136	0.07	0.07
Totals		129	531	0.27	0.07

EU 9 - VPI Tank #1

	lb VOC/gallon	gallons/year	lb VOC/year	ton VOC/year
709A	2.7	1,930	5211	2.61
Totals		1,930	5211	2.61

EU 10 - VPI Tank #2

	lb VOC/gallon	gallons/year	lb VOC/year	ton VOC/year
709A	2.7	1,930	5211	2.61
Totals		1,930	5211	2.61