

- 2a. Pursuant to 35 Ill. Adm. Code 212.123(a), no person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to 35 Ill. Adm. Code 212.122.
- b. Pursuant to 35 Ill. Adm. Code 212.123(b), the emission of smoke or other particulate matter from any such emission unit may have an opacity greater than 30 percent but not greater than 60 percent for a period or periods aggregating 8 minutes in any 60 minute period provided that such opaque emissions permitted during any 60 minute period shall occur from only one such emission unit located within a 305 m (1000 ft) radius from the center point of any other such emission unit owned or operated by such person, and provided further that such opaque emissions permitted from each such emission unit shall be limited to 3 times in any 24 hour period.
- c. Pursuant to 35 Ill. Adm. Code 212.321(a), except as further provided in 35 Ill. Adm. Code Part 212, no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in 35 Ill. Adm. Code 212.321(c).
3. Pursuant to 35 Ill. Adm. Code 214.301, except as further provided by 35 Ill. Adm. Code Part 214, no person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission source to exceed 2000 ppm.
4. Pursuant to 35 Ill. Adm. Code 215.301, no person shall cause or allow the discharge of more than 3.6 kg/hr (8 lbs/hr) of organic material into the atmosphere from any emission unit, except as provided in 35 Ill. Adm. Code 215.302, 215.303, 215.304 and the following exception: If no odor nuisance exists the limitation of 35 Ill. Adm. Code Part 215 Subpart K (Use of Organic Material) shall apply only to photochemically reactive material.
5. Pursuant to 35 Ill. Adm. Code 216.121, no person shall cause or allow the emission of carbon monoxide (CO) into the atmosphere from any fuel combustion emission source with actual heat input greater than 2.9 MW (10 mmBtu/hr) to exceed 200 ppm, corrected to 50 percent excess air.
- 6a. This permit is issued based on the source not being subject to the National Emission Standard for Hazardous Air Pollutants (NESHAP) for Surface Coating of Miscellaneous Metal Parts and Products, 40 CFR 63 Subpart MMMM. This is a result of the federally enforceable production and operating limitations, which restrict the potential to emit to less than 10 tons/year for any individual Hazardous Air Pollutant (HAP), and 25 tons/year of any combination of such HAPs.

- b. This permit is issued based on the curing ovens and boilers at this source not being subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63 Subpart DDDDD because the burn off oven is not located at, nor is part of, a major source of HAP as defined in 40 CFR 63.2.
 - c. This permit is issued based on this source not being subject to the National Emission Standard for Hazardous Air Pollutants (NESHAP) for Friction Materials Manufacturing Facilities, 40 CFR 63 Subpart QQQQQ because the source does not manufactures friction materials using a solvent-based process.
 - d. This permit is issued based on the coating operations at this source not being subject to the National Emission Standard for Hazardous Air Pollutants (NESHAP) for Paint Stripping And Miscellaneous Surface Coating Operations At Area Sources, 40 CFR 63 Subpart HHHHHH, because the source is not involved in the spray application of coatings containing compounds of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd), collectively referred to as the target HAP to any part or product made of metal or plastic, or combinations of metal and plastic that are not motor vehicles or mobile equipment.
 - e. This permit is issued based on the coating operations at this source not being subject to the National Emission Standard for Hazardous Air Pollutants (NESHAP) for Nine Metal Fabrication and Finishing Source Categories, 40 CFR 63 Subpart XXXXXX, because the source does not use materials that contain or have the potential to emit metal fabrication or finishing metal HAP (MFHAP), defined to be the compounds of cadmium, chromium, lead, manganese, and nickel, or any of these metals in the elemental form with the exception of lead. Materials that contain MFHAP are defined to be materials that contain greater than 0.1 percent for carcinogens, as defined by OSHA at 29 CFR 1910.1200(d)(4), and greater than 1.0 percent for noncarcinogens.
- 7a. Pursuant to 35 Ill. Adm. Code 215.206(a), the limitations of 35 Ill. Adm. Code Part 215, Subpart F (Coating Operations) shall not apply to:
- i. Coating plants in which emissions of volatile organic material as limited by the operating permit will not exceed 22.7 Mg/year (25 ton/year), in the absence of air pollution control equipment; or
 - ii. Coating plants in which the total coating usage does not exceed 9,463 l/yr (2,500 gal/yr);
- 8a. In the event that the operation of this source results in an odor nuisance, the Permittee shall take appropriate and necessary actions to minimize odors, including but not limited to, changes in raw material or installation of controls, in order to eliminate the nuisance.
- b. The boilers shall only be operated with natural gas as the fuel. The use of any other fuel in any of the boilers requires that the Permittee first obtain a construction permit from the Illinois EPA and then

perform stack testing to verify compliance with all applicable requirements.

9a. Operation and emissions from grinding wheel molding and curing operations shall not exceed the following limits:

- i. Phenolic Resin Usage: 35 tons/month, 350 tons/year
- ii. Emissions of VOM and HAPs:

<u>Pollutant</u>	<u>Emission Factor (lbs/Ton)</u>	<u>Emissions</u>	
		<u>(Tons/Month)</u>	<u>(Tons/Year)</u>
Formaldehyde	55.4	0.97	9.7
Phenol	24.8	0.43	4.3
		Total VOM	14.0

These limits are based on the maximum production rate and emission factors derived from the stack test performed at the source.

b. Emissions from the four paint booths shall not exceed the following limits:

<u>VOM Usage</u>		<u>Combined HAP Usage</u>		<u>VOM Emissions</u>		<u>Combined HAP Emissions</u>	
<u>Ton/Mo</u>	<u>Ton/Yr</u>	<u>Ton/Mo</u>	<u>Ton/Yr</u>	<u>Ton/Mo</u>	<u>Ton/Yr</u>	<u>Ton/Mo</u>	<u>Ton/Yr</u>
0.8	8.0	0.6	6.0	0.8	8.0	0.6	6.0

These limits are based on the maximum production rate. The VOM/HAP emissions shall be calculated using the following equation:

$$E = \sum (M_i \times V_i),$$

where:

E = VOM or HAP emissions (tons);

M_i = VOM or HAP-containing raw materials usage (tons); and

V_i = VOM or HAP content of raw materials (fraction).

c. Operation and emissions of the natural gas-fired boilers and curing ovens shall not exceed the following limits:

- i. Natural Gas Usage: 50 mmscf/month, 450 mmscf/year
- ii. Emissions from the combustion of natural gas:

<u>Pollutant</u>	Emission	Emissions	
	Factors (lbs/mmscf)	(Tons/Month)	(Tons/Year)
Carbon Monoxide (CO)	84.0	2.10	18.90
Nitrogen Oxides (NO _x)	100.0	2.50	22.50
Particulate Matter (PM)	7.6	0.19	1.71
Sulfur Dioxide (SO ₂)	0.6	0.02	0.14
Volatile Organic Materials (VOM)	5.5	0.14	1.24

These limits are based on the maximum fuel usage and standard emission factors (Tables 1.4-1 and 1.4-2, AP-42, Fifth Edition, Volume I, Supplement D, July 1998).

- d. This permit is issued based on negligible emissions of particulate matter from the resin and abrasives mixing operations. For this purpose, emissions shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year.
 - e. Compliance with the annual limits of this permit shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).
- 10a. Pursuant to 35 Ill. Adm. Code 201.282, every emission source or air pollution control equipment shall be subject to the following testing requirements for the purpose of determining the nature and quantities of specified air contaminant emissions and for the purpose of determining ground level and ambient air concentrations of such air contaminants:
- i. Testing by Owner or Operator. The Illinois EPA may require the owner or operator of the emission source or air pollution control equipment to conduct such tests in accordance with procedures adopted by the Illinois EPA, at such reasonable times as may be specified by the Illinois EPA and at the expense of the owner or operator of the emission source or air pollution control equipment. The Illinois EPA may adopt procedures detailing methods of testing and formats for reporting results of testing. Such procedures and revisions thereto, shall not become effective until filed with the Secretary of State, as required by the APA Act. All such tests shall be made by or under the direction of a person qualified by training and/or experience in the field of air pollution testing. The Illinois EPA shall have the right to observe all aspects of such tests.
 - ii. Testing by the Illinois EPA. The Illinois EPA shall have the right to conduct such tests at any time at its own expense. Upon request of the Illinois EPA, the owner or operator of the emission source or air pollution control equipment shall provide, without charge to the Illinois EPA, necessary holes in stacks or ducts and other safe and proper testing facilities, including scaffolding, but excluding instruments and sensing devices, as may be necessary.

- b. Testing required by Condition 10 shall be performed upon a written request from the Illinois EPA by a qualified independent testing service.
- 11a. Pursuant to 35 Ill. Adm. Code 215.208(a), the VOM content of coatings shall be determined by Method 24, 40 CFR Part 60, Appendix A, except for glues and adhesive coatings, two component reactive coatings forming volatile reaction products, coatings requiring energy other than heat to initiate curing, and coatings requiring high temperature catalysis for curing, providing the person proposing testing of the material submits to the Illinois EPA proof that the Method 24 results would not be representative and proof that a proposed alternative test method gives representative, accurate test results. For printing inks, the volatile organic material content shall be determined by Method 24A, 40 CFR Part 60, Appendix A. Any alternate test method must be approved by the Illinois EPA which shall consider data comparing the performance of the proposed alternative to the performance of the approved test method(s). If the Illinois EPA determines that such data demonstrates that the proposed alternative will achieve results equivalent to the approved test method(s), the Illinois EPA shall approve the proposed alternative.
- b. Pursuant to 35 Ill. Adm. Code 215.208(b), transfer efficiency shall be determined by a method, procedure or standard approved by the USEPA, under the applicable new source performance standard or until such time as USEPA has approved and published such a method, procedure or standard, by any appropriate method, procedure or standard approved by the Illinois EPA.
12. Pursuant to 40 CFR 63.10(b)(3), if an owner or operator determines that his or her stationary source that emits (or has the potential to emit, without considering controls) one or more hazardous air pollutants regulated by any standard established pursuant to section 112(d) or (f) of the Clean Air Act, and that stationary source is in the source category regulated by the relevant standard, but that source is not subject to the relevant standard (or other requirement established under 40 CFR Part 63) because of limitations on the source's potential to emit or an exclusion, the owner or operator must keep a record of the applicability determination on site at the source for a period of 5 years after the determination, or until the source changes its operations to become an affected source, whichever comes first. The record of the applicability determination must be signed by the person making the determination and include an analysis (or other information) that demonstrates why the owner or operator believes the source is unaffected (e.g., because the source is an area source). The analysis (or other information) must be sufficiently detailed to allow the USEPA and/or Illinois EPA to make a finding about the source's applicability status with regard to the relevant standard or other requirement. If relevant, the analysis must be performed in accordance with requirements established in relevant subparts of 40 CFR Part 63 for this purpose for particular categories of stationary sources. If relevant, the analysis should be performed in accordance with USEPA

guidance materials published to assist sources in making applicability determinations under Section 112 of the Clean Air Act, if any. The requirements to determine applicability of a standard under 40 CFR 63.1(b)(3) and to record the results of that determination under 40 CFR 63.10(b)(3) shall not by themselves create an obligation for the owner or operator to obtain a Title V permit.

- 13a. The Permittee shall maintain records of the following items so as to demonstrate compliance with the Conditions in this permit:
- i. Names and amounts of all VOM and HAP-containing raw materials (i.e., resin, coatings, and solvents) used at the source (tons/month and tons/year);
 - ii. VOM and HAP content of resin, coatings, and solvents (weight %);
 - iii. Natural gas consumption (mmscf/month and mmscf/year); and
 - iv. Monthly and annual emissions of CO, NO_x, PM, SO₂, VOM and HAPs from the source with supporting calculations (tons/month and tons/year).
- b. All records and logs required by this permit shall be retained at a easily accessible location at the source for at least five (5) years from the date of entry and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request. Any records retained in an electronic format (e.g., computer storage device) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to the Illinois EPA or USEPA request for records during the course of a source inspection.
- 14a. If there is an exceedance of or a deviation from the requirements of this permit as determined by the record required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance or deviation. The report shall include the emissions released in accordance with the record keeping requirements, a copy of the relevant records, and a description of the exceedance or deviation and efforts to reduce emissions and future occurrences.
- b. Two (2) copies of required reports and notifications shall be sent to:
- Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, IL 62794-9276
- and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

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Illinois Environmental Protection Agency
Division of Air Pollution Control - Regional Office
412 SW Washington Street
Suite D
Peoria, Illinois 61602

If you have any questions on this permit, please call Valeriy Brodsky at 217/785-1705.

Raymond E. Pilapil
Acting Manager, Permit Section
Division of Air Pollution Control

Date Signed: _____

REP:VJB:

cc: Illinois EPA, FOS Region 2
Lotus Notes

Attachment A - Emissions Summary

This attachment provides a summary of the maximum emission from the abrasive grinding wheels & machines manufacturing plant operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Illinois EPA used the annual operating scenario which results in maximum emissions from such a plant. The resulting maximum emissions are below the levels (e.g., 10 tons/year for any single HAP, and 25 tons/year for any combination of such HAPs) at which this source would be considered a major source for purposes of the Clean Air Act Permit Program. Actual emissions from this source will be less than predicted in this summary to the extent that material is handled, and control measures are more effective than required in this permit.

<u>Process</u>	E M I S S I O N S (Tons/Year)						Single <u>HAP</u>	Combined <u>HAP</u>
	<u>CO</u>	<u>NO_x</u>	<u>PM</u>	<u>SO₂</u>	<u>VOM</u>			
Molding/Curing Operations					14.00		9.7	14.0
Painting					8.00			6.0
Resin and Abrasives Mixing			0.44					
Natural Gas Combustion	<u>18.90</u>	<u>22.50</u>	<u>1.71</u>	<u>0.14</u>	<u>1.24</u>	--	--	--
Totals	<u>18.90</u>	<u>22.50</u>	<u>2.15</u>	<u>0.14</u>	<u>23.24</u>	9.7		20.0

REP:VJB: