

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT

PERMITTEE

Mecalux Illinois, Inc.  
Attn: Alejandro Fuentes  
1600 North 25th Avenue  
Melrose Park, Illinois 61060

<u>Application No.:</u> 02080044	<u>I.D. No.:</u> 031186AHL
<u>Applicant's Designation:</u> MECALUX002	<u>Date Received:</u> August 21, 2002
<u>Subject:</u> Rack Painting Operation	
<u>Date Issued:</u> April 1, 2003	<u>Expiration Date:</u> April 1, 2008
<u>Location:</u> 1600 North 25th Avenue, Melrose Park	

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of

Hydro-Soluble Process:

Hydro-Soluble Degreasing Sprinkler (Cold Cleaning Degreaser)  
Hydro-Soluble Pasivator/Demineralization Sprinkler  
Hydro-Soluble Paint Spray Booth Controlled by Filter

Cataphoresis Process:

Cataphoresis Painting Dip Tank  
Cataphoresis Degreasing Dip Tank (Open Top Vapor Degreaser)

Metal Bending

Welding

Fuel Combustion Emission Sources

pursuant to the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

- 1a. This federally enforceable state operating permit is issued to limit the emissions of air pollutants from the source to less than major source thresholds (i.e., 25 tons/year for volatile organic material (VOM)). As a result the source is excluded from the requirement to obtain a Clean Air Act Permit Program (CAAPP) permit. The maximum emissions of this source, as limited by the conditions of this permit, are described in Attachment A.
- b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.
- c. This permit supersedes all operating permits issued for this location.

2. Emissions of volatile organic material (VOM) and operation of the listed equipment shall not exceed the following limits:

<u>Equipment</u>	<u>Material</u>	<u>Coating Usage</u>		<u>VOM</u>	<u>VOM Emissions</u>	
		<u>(Ton/Mo)</u>	<u>(Ton/Yr)</u>	<u>Content</u>	<u>(Ton/Mo)</u>	<u>(Ton/Yr)</u>
				<u>(% Wt.)</u>		
Hydro-Soluble Paint						
Spray Booth	Coating	10	100	20	2.0	20.0
Cataphoresis Painting						
Dip Tanks	Coating	1.6	15.9	1.2	0.02	0.2
	Paste	1.1	10.1	12.2	<u>0.14</u>	<u>1.3</u>
				Totals:	2.16	21.5

These limits define the actual emissions of VOM and are based on maximum material usage and maximum VOM content. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months.

- 3a. This permit is issued based on negligible emissions of volatile organic material from the hydro-soluble degreasing sprinkler, hydro-soluble pasivator/demineralization sprinkler, cataphoresis degreasing dip tank, metal bending, and welding. For this purpose emissions from each emission source shall not exceed nominal emission rates of 0.25 lb/hr and 0.44 ton/yr.
- b. This permit is issued based on negligible emissions of particulate matter from hydro-soluble pasivator demineralization sprinkler and hydro-soluble paint spray booth. For this purpose emissions from each emission source shall not exceed nominal emission rates of 0.55 lb/hr and 0.5 ton/yr.
- 4a. Emissions and operation of all the fuel combustion sources shall not exceed the following limits:

<u>Material</u>	<u>(mmscf/Mo)(mmscf/Yr)</u>		<u>Pollutant</u>	<u>Emission</u>	<u>Emissions</u>	
				<u>Factor</u>	<u>(Ton/Mo)</u>	<u>(Ton/Yr)</u>
				<u>(Lb/mmscf)</u>		
Natural Gas	25	248	NO <sub>x</sub>	100	1.25	12.4
			CO	84	1.05	10.42
			PM	7.6	0.1	0.94
			VOM	5.5	0.1	0.68

These limits define the potential emissions of NO<sub>x</sub>, CO, PM, and VOM and are based on maximum fuel usage and standard emission factors. Compliance with annual limits shall be determined from a running total of 12 months of data.

- b. Natural gas shall be the only fuel used in the fuel combustion sources. Use of any other fuel other than natural gas requires a permit revision.
5. The emissions of Hazardous Air Pollutants (HAP) as listed in Section 112(b) of the Clean Air Act shall be less than 10 tons/year of any single HAP and 25 tons/year of any combination of such HAPs. As a result of this condition, this permit is issued based on the emissions of all HAPs from this source not triggering the requirements to obtain a Clean Air Act Permit Program Permit (CAAPP), and Section 112(G) of the Clean Air Act.
6. Pursuant to 35 Ill. Adm. Code 218.204(j)(4)(B), any coatings applied at any time in the hydro-soluble paint spray booths and cataphoresis painting dip tank shall not exceed 2.8 lb VOM per volume of coating (lb/gal) (minus water and any other compounds which are specifically exempted from the definition of VOM) as applied at each applicator.
7. This permit is issued based on the facility using cleanup solutions that do not contain any volatile organic material.
8. Pursuant to 35 Ill. Adm. Code 218.182(c)(2)(B), the Permittee shall not operate a cold cleaning degreaser with a solvent vapor pressure which exceeds 1.0 mmHg (0.019 psi) measure at 20°C (68°F).
9. The Permittee shall comply with the following operating requirements for cold cleaning degreasers, pursuant to 35 Ill. Adm. Code 218.182:
  - a. Waste solvent shall be stored in containers only and not disposed of in such a manner that more than 20% of the waste solvent (by weight) is allowed to evaporate into the atmosphere;
  - b. The cover of the degreaser shall be closed when parts are not being handled and parts are drained until dripping ceases.
  - c. The degreaser must be equipped with a cover which is closed whenever parts are not being handled in the cleaner;
  - d. The degreaser shall be equipped with a device for draining cleaned parts.
  - e. A permanent conspicuous label summarizing the operating procedure must be affixed to the degreaser; and
  - f. If a solvent spray is used, the degreaser must be equipped with a solid fluid stream spray, rather than a fine, atomized or shower spray.
10. The Permittee shall maintain monthly records of the following for the cold cleaning degreasers, pursuant to 35 Ill. Adm. Code 218.182:
  - a. The name and address of the solvent supplier;

- b. The date of purchase;
  - c. The type of solvent; and
  - d. The vapor pressure of the solvent measured in mmHg at 20°C (68°F).
11. The Permittee shall comply with the following requirements for open top vapor degreasers pursuant to 35 Ill Adm. Code 218.183:
- a. Operating requirements: No person shall operate an open top vapor degreaser unless:
    - i. The cover of the degreaser is closed when workloads are not being processed through the degreaser;
    - ii. Solvent carry out emissions are minimized by:
      - A. Racking parts to allow complete drainage;
      - B. Moving parts in and out of the degreaser at less than 3.3 m/min (11 ft/min);
      - C. Holding the parts in the vapor zone until condensation ceases;
      - D. Tipping out any pools of solvent on the cleaned parts before removal from the vapor zone; and
      - E. Allowing parts to dry within the degreaser until visually dry;
    - iii. Porous or absorbent materials, such as cloth, leather, wood or rope, are not degreased;
    - iv. Less than half of the degreaser's open top area is occupied with a workload;
    - v. The degreaser is not loaded to the point where the vapor level would drop more than 10 cm (4 in) when the workload is removed from the vapor zone;
    - vi. Spraying is done below the vapor level only;
    - vii. Solvent leaks are repaired immediately;
    - viii. Waste solvent is stored in covered containers only and not disposed of in such a manner that more than 20% of the waste solvent (by weight) is allowed to evaporate into the atmosphere;

- ix. Water is not visually detectable in solvent exiting from the water separator; and
  - x. Exhaust ventilation exceeding 20 cubic meters per minute per square meter (65 cubic feet per minute per square foot) of degreaser open area is not used, unless necessary to meet the requirements of the Occupational Safety and Health Act (29 U.S.C. Section 651 et seq.).
- b. Equipment requirements: No person shall operate an open top vapor degreaser unless:
- i. The degreaser is equipped with a cover designed to open and close easily without disturbing the vapor zone;
  - ii. The degreaser is equipped with the following switches:
    - A. One which shuts off the sump heat if the amount of condenser coolant is not sufficient to maintain the designed vapor level; and
    - B. One which shuts off the spray pump if the vapor level drops more than 10 cm (4 in) below the bottom condenser coil; and
    - C. One which shuts off the sump heat source when the vapor level exceeds the design level;
  - iii. A permanent conspicuous label summarizing the operating procedure is affixed to the degreaser;
  - iv. The degreaser is equipped with one of the following devices:
    - A. A freeboard height of 3/4 of the inside width of the degreaser tank or 91 cm (36 in), whichever is less; and if the degreaser opening is greater than 1 square meter (10.8 square feet), a powered or mechanically assisted cover; or
    - B. Any other equipment or system of equivalent emission control as approved by the Illinois EPA and further processed consistent with Section 218.108 of this Part. Such equipment or system may include a refrigerated chiller, an enclosed design or a carbon adsorption system.
12. The Permittee shall maintain monthly records of the following items:
- a. Amount of each coating and paste used (tons/month and tons/year);
  - b. VOM content of each coating and paste used (% weight);

- c. VOM content (minus water and any other compounds which are specifically exempted from the definition of VOM) of each coating used (lb/gallon); and
  - d. Detailed calculations of VOM emissions (tons/month and tons/year).
13. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least three 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) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA or USEPA request for records during the course of a source inspection.
14. If there is an exceedance of the requirements of this permit as determined by the records 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. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.
15. Two (2) copies of required reports and notifications concerning equipment operation or repairs, performance testing or a continuous monitoring system shall be sent to:

Illinois Environmental Protection Agency  
Division of Air Pollution Control  
Compliance Section (#40)  
P.O. Box 19276  
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency  
Division of Air Pollution Control  
9511 West Harrison  
Des Plaines, Illinois 60016

16. The Permittee shall submit the following additional information with the Annual Emissions Report, due May 1st of each year: Coating and paste usage, coating and paste VOM content, and calculations of VOM emissions from the prior calendar year. If there has been no exceedance of a requirement of this permit during the prior calendar year, the annual emission report shall contain a statement to that effect.

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If you have any questions on this, please call Tara T. Nguyen-Ede at 217/782-2113.

Donald E. Sutton, P.E.  
Manager, Permit Section  
Division of Air Pollution Control

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cc: Illinois EPA, FOS Region 1  
Illinois EPA, Compliance Section  
Lotus Notes

Attachment A - Emission Summary

This attachment provides a summary of the maximum emissions from the coating facility 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 well below the levels, e.g., 25 tons per year of VOM 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 less material is handled and control measures are more effective than required in this permit.

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