

217/782-2113

"REVISED"  
FEDERALLY ENFORCEABLE STATE OPERATING PERMIT

PERMITTEE

Mecalux USA, 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>	<u>Date Received:</u> March 16, 2006
<u>Subject:</u> Rack Painting Operation	
<u>Date Issued:</u> September 25, 2006	<u>Expiration Date:</u> April 1, 2008
<u>Location:</u> 1600 North 25th Avenue, Melrose Park, Cook County	

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: lines #1 and #2  
    Hydro-Soluble Degreasing Sprinkler (Caustic Degreaser)  
    Hydro-Soluble Pasivator/Demineralization Sprinkler  
    Hydro-Soluble Paint Spray Booth Controlled by Filter

Cataphoresis Process: Lines #1 and #2  
    Cataphoresis Painting Dip Tank  
    Cataphoresis Degreasing Dip Tank (Caustic Degreaser)

Metal Bending  
Welding  
Fuel Combustion Emission Sources  
Hand cleaning process

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:
  - i. This federally enforceable state operating permit (FESOP) is issued to limit the emissions of air pollutants from the source to less than major source thresholds (i.e., VOM and 10 tons/year for a single HAP and 25 tons/year of any combination of such HAPs). As a result, the source is excluded from the requirements 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.

- ii. To limit the emissions of VOM from the construction of new emission units and other modifications at the source, which occurred without first obtaining construction permit(s) between November 15, 1992 and June 15, 2005 (the period during which the Chicago area was classified as severe nonattainment for ozone), to less than 25 tons/year. As a result, the source is excluded from the requirements of 35 Ill. Adm. Code Part 203, Major Stationary Sources Construction and Modification.
  - iii. To limit emissions of VOM from the source (both plants combined) during the seasonal allotment period from May 1 through September 30 of each year shall not exceed 15 tons. This limitation is established at the request of the source to exempt it from the requirements of 35 Ill. Adm. Code Part 205, Emissions Reduction Market System (ERMS), pursuant to 35 Ill. Adm. Code 205.205, except reporting requirements of 35 Ill. Adm. Code 205.300.
- 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.
- 2a. Emissions of VOM from the source during the seasonal allotment period from May 1 through September 30 of each year shall not exceed 15 tons. This limitation is established at the request of the source to exempt it from the requirements of 35 Ill. Adm. Code Part 205, Emissions Reduction Market System (ERMS), pursuant to 35 Ill. Adm. Code 205.205.
  - b. In the event that the source's VOM emissions during the seasonal allotment period exceed 15 tons, the source shall no longer be exempt from the ERMS and beginning with the following seasonal allotment period, shall comply with 35 Ill. Adm. Code Part 205, by holding allotment trading units (ATUs) for its VOM emissions during each seasonal allotment period.
- 3. 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 (lbs/gallon) (minus water and any other compounds which are specifically exempted from the definition of VOM) as applied at each applicator.
  - 4. Pursuant to 35 Ill. Adm. Code 218.301, no person shall cause or allow the discharge of more than 3.6 kg/hour (8 lbs/hour) of organic material into the atmosphere from any emission source, except as provided in 35 Ill. Adm. Code 218.302, 218.303, 218.304 and the following exception: If no odor nuisance exists the limitation of 35 Ill. Adm. Code 218 Subpart G: Use of Organic Material, shall apply only to photochemically reactive material.
  - 5. This permit is issued for hand cleaning process based on its not being required to meet the control requirements of 35 Ill. Adm. Code

218.980(d) by qualifying for the exemption in 218.980(c). To qualify for this exemption, emissions of VOM from above referenced equipment must not exceed 2.5 tons per calendar year and emissions of all emission units combined subject to Subpart TT and not complying with the requirements of 218.986 must not exceed 5.0 tons per calendar year.

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

a.

Constructed prior to June 15, 2005 Equipment	Material	Material Usage		VOM	VOM Emissions	
		(Ton/Mo)	(Ton/Yr)	Content (% Wt.)	(Ton/Mo)	(Ton/Yr)
Hydro-Soluble Paint Spray Booth line #1	Coating	12.3	123	15.0	1.85	18.5
Cataphoresis Painting Dip Tanks line #2	Coating	5.5	55	1.4	0.08	0.8
	Paste	1.9	19	12.2	0.23	2.3
				Totals:	2.16	21.6

b.

Constructed after June 15, 2005 Equipment	Material	Material Usage		VOM	VOM Emissions	
		(Ton/Mo)	(Ton/Yr)	Content (% Wt.)	(Ton/Mo)	(Ton/Yr)
Hydro-Soluble Paint line #2	Coating	28.8	288	15.0	4.32	43.14
Cataphoresis Painting Dip Tanks line #2	Coating	14.0	141	1.4	0.20	1.96
	Paste	4.9	49	12.2	0.59	5.90
Hand cleaning line #1	Solvent	0.3	2.6	93.0	0.25	2.42
				Totals:	5.36	53.42

c. 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.

d. This permit is issued based on the material used in the new hydro-soluble coating line #2, cataphoresis coating line #2, cataphoresis paste line #2, and a hand cleaning process containing no organic hazardous air pollutants.

e. The emissions of Hazardous Air Pollutants (HAP) as listed in Section 112(g) 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).

- 7a. 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/hour and 0.44 tons/year.
- b. This permit is issued based on negligible emissions of particulate matter from hydro-soluble pasivator demineralization sprinkler and hydro-soluble paint spray booths. For this purpose emissions from each emission source shall not exceed nominal emission rates of 0.55 lb/hour and 0.5 tons/year.
- 8a. Emissions and operation of all the fuel combustion sources shall not exceed the following limits:

<u>Material</u>	<u>(mmscf/Mo)</u>	<u>(mmscf/Yr)</u>	<u>Pollutant</u>	<u>Emission Factor (Lb/mmscf)</u>	<u>Emissions (Ton/Mo)</u>	<u>(Ton/Yr)</u>
Natural Gas	25	248	NO <sub>x</sub>	100	1.25	12.40
			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.
- 9. 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.
- 10. The Permittee shall, in accordance with the manufacturer(s) and/or vendor(s) recommendations, perform periodic maintenance on the pollution control equipment covered under this permit such that the pollution control equipment be kept in proper working condition and not

cause a violation of the Environmental Protection Act or regulations promulgated therein.

- 11a. Pursuant to 40 CFR 63.10(b)(3) an owner or operator determining 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), 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 this part) because of limitations on the source's potential to emit or an exclusion, the owner or operator unit keep a record of the applicability determination on site at the source for a period of five years after the determination, or until the source changes its operations to become an effected 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 Administrator 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 this part for the purpose for particular categories of stationary sources. If relevant, the analysis should be performed in accordance with EPA guidance materials published to assist sources in making applicability determinations under section 112, 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 paragraph (b)(3) of this section shall not by themselves create an obligation for the owner or operator to obtain a title V permit.
- b. The Permittee shall maintain monthly records of the following items:
  - i. Amount of each coating, paste and cleaning solvent used (tons/month and tons/year);
  - ii. VOM and HAP content of each coating, paste, and cleaning solvent used (% weight);
  - iii. VOM and HAP content (minus water and any other compounds which are specifically exempted from the definition of VOM) of each coating used (lbs/gallon); and
  - iv. Monthly and annual VOM and HAP emissions with supporting calculations (tons/month and tons/year).
- c. The Permittee shall maintain the following records to determine compliance with the 15 tons VOM/ozone season limitation specified in Condition 2:

- i. Records of operating data and other information for each individual emission unit or group of related emission units at the source, as specified in this permit, as appropriate, to determine actual VOM emissions during the seasonal allotment period;
    - ii. Records of the VOM emissions, in tons, during the seasonal allotment period, with supporting calculations, for each individual emission unit or group of related emission units at the source, determined in accordance with the procedures specified in this permit; and
    - iii. Total VOM emissions from the source, in tons, during each seasonal allotment period.
  - d. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least five 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.
- 12a. Pursuant to 35 Ill. Adm. Code 218.990, upon request by the Illinois EPA, the owner or operator of an emission unit which is exempt from the requirements of 35 Ill. Adm. Code 218 Subparts PP, QQ, RR, TT or 35 Ill. Adm. Code 218.208(b) shall submit records to the Illinois EPA within 30 calendar days from the date of the request that document that the emission unit is exempt from those requirements.
- b. The Permittee shall submit the seasonal emissions component of the Annual Emissions Report by October 31 of each year, reporting actual emissions of VOM during the seasonal allotment period, in accordance with 35 Ill. Adm. Code 205.205(b) and 35 Ill. Adm. Code 205.300.
  - c. If there is an exceedance of or deviation from 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/deviation. 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 deviation and efforts to reduce emissions and future occurrences.
13. 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, 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

It should be noted that this permit has been revised to incorporate Construction Permit 06030054 to add new hydro-soluble coating line #2, cataphoresis coating line #2, and cataphoresis paste line #2, and a hand cleaning process.

It should also be noted that conditions relating to cold cleaning degreasers (35 Ill. Adm. Code 218.182) and open top vapor degreasers (35 Ill. Adm. Code 218.183) as caustic solution rather than solvent solution is used in affected operations.

If you have any questions on this, please call George M. Kennedy at 217/782-2113.

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

DES:GMK:psj

cc: FOS Region 1

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 below the levels, e.g., 25 tons/year for volatile organic material (VOM) for units constructed prior to June 15, 2005 and 100 tons/year for volatile organic material (VOM) for units constructed after June 15, 2005; and hazardous air pollutants (HAPs) to less than 10 tons/year of any single HAP or 25 tons/year of any combination of 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 less material is handled and control measures are more effective than required in this permit.

<u>Equipment/Operation</u>	<u>Material</u>	E M I S S I O N S (Tons/Year)					HAPs	
		<u>VOM</u>	<u>PM</u>	<u>NO<sub>x</sub></u>	<u>CO</u>	<u>Single</u>	<u>Combined</u>	
Hydro-Soluble Paint Spray Booth line #1 Line #2	Coating	18.50 43.14	0.50 0.50					
Cataphoresis Painting Dip Tanks Line #1 Line #2 Line #1 Line #2	Coating    Paste	0.80 1.96 2.30 5.90						
Hydro-Soluble Degreasing Sprinkler		0.44						
Hydro-Soluble Pasivator/ Demineralization Sprinkler		0.44	0.50					
Cataphoresis Degreasing Dip Tank		0.44						
Hand cleaning line #1	Solvent	2.42						
Metal Bending		0.44						
Welding		0.44						
Combustion		<u>0.68</u>	<u>0.94</u>	<u>12.4</u>	<u>10.42</u>			
Totals		<u>77.90</u>	<u>2.44</u>	<u>12.4</u>	<u>10.42</u>	<u>&lt; 10</u>	<u>&lt; 25</u>	

GMK:psj



Attachment B - Emissions Reduction Market System (ERMS)

1. Description of ERMS

The ERMS is a "cap and trade" market system for major stationary sources located in the Chicago ozone nonattainment area. It is designed to reduce VOM emissions from stationary sources to contribute to reasonable further progress toward attainment, as required by Section 182(c) of the CAA.

The ERMS addresses VOM emissions during a seasonal allotment period from May 1 through September 30. Participating sources must hold "allotment trading units" (ATUs) for their actual seasonal VOM emissions. Each year participating sources are issued ATUs based on allotments set in the sources' CAAPP permits. These allotments are established from historical VOM emissions or "baseline emissions" lowered to provide the emissions reductions from stationary sources required for reasonable further progress.

By December 31 of each year, the end of the reconciliation period following the seasonal allotment period, each source should have sufficient ATUs in its transaction account to cover its actual VOM emissions during the preceding season. A transaction account's balance as of December 31 will include any valid ATU transfer agreements entered into as of December 31 of the given year, provided such agreements are promptly submitted to the Illinois EPA for entry into the transaction account database. The Illinois EPA will then retire ATUs in sources' transaction accounts in amounts equivalent to their seasonal emissions. When a source does not appear to have sufficient ATUs in its transaction account, the Illinois EPA will issue a notice to the source to begin the process for Emissions Excursion Compensation.

In addition to receiving ATUs pursuant to their allotments, participating sources may also obtain ATUs from the market, including ATUs bought from other participating sources and general participants in the ERMS that hold ATUs (35 Ill. Adm. Code 205.630) and ATUs issued by the Illinois EPA as a consequence of VOM emissions reductions from an Emissions Reduction Generator or an Intersector Transaction (35 Ill. Adm. Code 205.500 and 35 Ill. Adm. Code 205.510). During the reconciliation period, sources may also buy ATUs from a secondary reserve of ATUs managed by the Illinois EPA, the "Alternative Compliance Market Account" (ACMA) (35 Ill. Adm. Code 205.710). Sources may also transfer or sell the ATUs that they hold to other sources or participants (35 Ill. Adm. Code 205.630).

2. Applicability

Emissions of VOM from the source during the seasonal allotment period from May 1 through September 30 of each year shall not exceed 15 tons, not including VOM emissions from insignificant emission units and activities. This limitation is established at the request of the source to exempt it from the requirements of 35 Ill. Adm. Code Part

205, Emissions Reduction Market System (ERMS), pursuant to 35 Ill. Adm. Code 205.205.

Page 2

3. Recordkeeping and Reporting

- a. The Permittee shall maintain the following records to determine compliance with the above limitation:
  - i. Records of operating data and other information for each individual emission unit or group of related emission units at the source, as specified in this permit, as appropriate, to determine actual VOM emissions during the seasonal allotment period;
  - ii. Records of the VOM emissions, in tons, during the seasonal allotment period, with supporting calculations, for each individual emission unit or group of related emission units at the source, determined in accordance with the procedures, which may be specified in this permit; and
  - iii. Total VOM emissions from the source, in tons, during each seasonal allotment period.
- b. The Permittee shall submit the seasonal emissions component of the Annual Emissions Report by October 31 of each year, reporting actual emissions of VOM during the seasonal allotment period, in accordance with 35 Ill. Adm. Code 205.205(b) and 35 Ill. Adm. Code 205.300.
- c. In the event that the source's VOM emissions during the seasonal allotment period exceed 15 tons, the source shall no longer be exempt from the ERMS and beginning with the following seasonal allotment period, shall comply with 35 Ill. Adm. Code Part 205, by holding allotment trading units (ATUs) for its VOM emissions during each seasonal allotment period.

GMK:psj