

217/782-2113

CONSTRUCTION PERMIT - REVISED

PERMITTEE

E/M, Division of Morgan Chemical Products, Inc.  
Attn: Jeff Redd  
129 Eisenhower Lane South  
Lombard, Illinois 60148

Application No.: 97050006

I.D. No.: 043060ABT

Applicant's Designation:

Date Received: November 19, 1999

Subject: Coating Lines

Date Issued: May 8, 2000

Location: 129 Eisenhower Lane South, Lombard

This permit is hereby granted to the above-designated Permittee to CONSTRUCT emission unit(s) and/or air pollution control equipment consisting of six paint lines controlled by the regenerative adsorber (with catalytic afterburner controlling regenerative cycle), one open top vapor degreaser and one burn-off furnace controlled by direct-flame afterburner pursuant to the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

- 1a. This permit is issued based upon construction of the coating lines does not constitute a new major source and do not trigger an applicability of 35 Ill. Adm. Code, Part 203, Subpart B. It is consequence of the federally enforceable limitations of this permit which limit source-wide emissions of volatile organic material (VOM) from the source to less than major threshold level (i.e., 25 tons/year of VOM). As a result, the source is also excluded from the requirements to obtain a Clean Air Act Permit Program (CAAPP) permit.
- b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.
2. The coating lines are subject to and shall comply with the volatile organic materials (VOM) emission limitations of 35 Ill. Adm. Code Part 218 Subpart F: Coating Operations. Compliance with the requirements of this subpart shall be achieved through the use of a capture system and control device that provides 81 percent reduction in the overall emissions of volatile organic material (VOM) from the coating lines and a control device that provides a 90 percent efficiency pursuant to 35 Ill. Adm. Code 218.207(b)(1).

3. VOM usage in paints and paint lines clean-up solvents, control efficiency and combined VOM emissions from all paint lines shall comply with the following limits:

Maximum VOM Usage		Minimum Control	Maximum	
(Ton/Mo)	(Ton/Yr)	Efficiency	VOM Emissions	
		(%)	(Ton/Mo)	(Ton/Yr)
15	122	81	2.9	23.2

These limits are based on the maximum production rate and minimum allowable control efficiency. Compliance with annual limits shall be determined from a running total of 12 months of data.

4. Within 90 days of issuance of this permit, the Permittee shall submit to the Illinois EPA for approval a description of continuous monitoring equipment to be installed to comply with requirements of Section 218.105(d). Such description shall include operational, calibration and maintenance procedures and vendor specifications. This equipment shall be installed within 90 days after the Illinois EPA approval and be operated at all times the afterburner or adsorber is in use. The monitoring equipment must monitor the following parameters:
- a. For a catalytic afterburner, the temperature rise across each catalytic afterburner bed or VOM concentration of exhaust.
  - b. For adsorber, the VOM concentration of each adsorption bed exhaust or the exhaust of the bed next in sequence to be desorbed.
5. The coating lines control device shall be in operation at all times when coating or clean-up operations are performed on any of the coating lines.
6. The open top vapor degreaser shall comply with the following operating and equipment requirements of 35 Ill. Adm. Code 218.183:
- a. Operating Requirements:
    - 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:
- 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 source if the amount of condenser coolant is not sufficient to maintain the designed vapor level;
  - 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  $\frac{3}{4}$  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 ft<sup>2</sup>), a powered or mechanically assisted cover; or
    - B. Any 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.
7. This permit is issued based on degreasing solvent usage and volatile organic material (VOM) emissions from vapor degreaser not exceeding 0.2 ton/month and 1.7 ton/year. Compliance with annual limits shall be determined from a running total of 12 months of data.
8. No person shall cause or allow the emission of particulate matter into the atmosphere from the burn-off furnace to exceed 229 mg/scm (0.1 gr/scf) of effluent gases corrected to 12 percent carbon dioxide pursuant to 35 Ill. Adm. Code 212.181.
- 9a. This permit is issued based on negligible emissions of particulate matter from the burn-off furnace. For this purpose, emissions shall not exceed nominal emission rate of 0.1 lb/hour and 0.44 ton/year.
- b. The afterburner controlling burn-off furnace shall be in operation at all times when the associated emission unit is in operation.
  - c. The afterburner shall be equipped with a temperature indicator.

- 10a. Within 180 days of the receipt of this permit control efficiency of the control system adsorber/afterburner shall be measured by an approved testing service, during conditions which are representative of the maximum performance.
- b. The following methods and procedures shall be used for testing of emissions. Refer to 40 CFR 60, Appendix A for USEPA test methods.

Location of Sample Points	USEPA Method 1
Gas Flow and Velocity	
USEPA Method 2	
Flue Gas Weight	
USEPA Method 3	
Moisture	
USEPA Method 4	
Volatile Organic Material	USEPA Method 25 or 25A if outlet VOM concentration is less than 50 ppm as carbon (non-methane)
Capture Efficiency	Part 218, Section 218.105(c)

- c. At least 30 days prior to the actual date of testing a written test plan shall be submitted to the Illinois EPA for review and approval. This plan shall describe the specific procedures for testing, including:
- i. The person(s) who will be performing sampling and analysis and their experience with similar tests.
  - ii. The conditions under which testing will be performed, including a discussion of why these conditions will be representative of the maximum operating rate, the levels of operating parameters at or within which compliance is intended to be shown, if applicable, and the means by which the operating parameters for the process and any control equipment will be determined.
- d. The Illinois EPA shall be notified prior to this test to enable the Illinois EPA to observe these tests. Notification for the expected date of testing shall be submitted a minimum of thirty (30) days prior to the expected date. Notification of the actual date and expected time of testing shall be submitted a minimum of five (5) working days prior to the actual date of the tests. The Illinois EPA may, at its discretion, accept notification with shorter advance notice provided that the Illinois EPA will not accept such notifications if it interferes with the Illinois EPA's ability to observe the testing.

11. The Final Report(s) for all tests shall be submitted within 30 days after the date of the test. The Final Report shall include as a minimum:
  - a. General information describing the test, including the name and identification of the emission source which was tested, date of test, names of personnel performing the tests, and Illinois EPA observers, if any;
  - b. A summary of results;
  - c. Description of test procedures, including description of sampling points, test equipment, and test schedule;
  - d. Detailed description of test conditions, including:
    - i. Process information, i.e., process rate, raw materials type, fuel type, etc.
    - ii. Control equipment information, i.e., equipment condition and operating parameters during testing.
    - iii. For each monitored parameter for which a compliant value is to be established, the specific operating parameter value, or range of values, that corresponds to compliance with the applicable emission limit.
  - e. Data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration.
12. The Permittee shall collect and record the following information each day:
  - a. Control devices monitoring data.
  - b. A log of operating time for the capture system, control devices, monitoring devices, and the associated coating lines.
  - c. A maintenance log for the capture system, control devices, and monitoring devices detailing all routine and non-routine maintenance performed including dates and duration of any outages.
- 13a. The Permittee shall maintain the following monthly records:
  - i. Names and usage of each paint and clean-up solvent (gal/mo);

- ii. VOM content of each paint and solvent(lb/gal);
  - iii. VOM emissions (ton/mo).
- b. These records shall be retained for three years and shall be available for inspection and copying by the Illinois EPA.
14. 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 Illinois EPA  
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 Illinois EPA  
Division of Air Pollution Control - Regional Office  
Eisenhower Tower  
1701 First Avenue  
Maywood, Illinois 60153

It should be noted that this permit has been revised to include operations of the burn-off furnace and allow increase of raw materials usage and VOM emissions.

If you have any questions on this, please call Valeriy Brodsky at 217/782-2113.

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

DES:VJB:jar

cc: Illinois EPA, FOS Region 1  
Illinois EPA, Compliance Section  
Lotus Notes  
Bob Hutton, Air Monitoring