

FINAL DRAFT/PROPOSED CAAPP PERMIT
Kemlite Company Inc.
I.D. No.: 197800AAX
Application No.: 95120140
June 9, 2000

² Except as provided in Condition 8.7 of this permit.

TABLE OF CONTENTS

| | <u>PAGE</u> |
|--|-------------|
| 1.0 SOURCE IDENTIFICATION | 4 |
| 1.1 Source | |
| 1.2 Owner/Parent Company | |
| 1.3 Operator | |
| 1.4 General Source Description | |
| 2.0 LIST OF ABBREVIATIONS/ACRONYMS USED IN THIS PERMIT | 5 |
| 3.0 INSIGNIFICANT ACTIVITIES | 7 |
| 3.1 Identification of Insignificant Activities | |
| 3.2 Compliance with Applicable Requirements | |
| 3.3 Addition of Insignificant Activities | |
| 4.0 SIGNIFICANT EMISSION UNITS AT THIS SOURCE | 9 |
| 5.0 OVERALL SOURCE CONDITIONS | 10 |
| 5.1 Source Description | |
| 5.2 Applicable Regulations | |
| 5.3 Non-Applicability of Regulations of Concern | |
| 5.4 Source-Wide Operational and Production Limits and Work Practices | |
| 5.5 Source-Wide Emission Limitations | |
| 5.6 General Recordkeeping Requirements | |
| 5.7 General Reporting Requirements | |
| 5.8 General Operational Flexibility/Anticipated Operating Scenarios | |
| 5.9 General Compliance Procedures | |
| 6.0 EMISSIONS REDUCTION MARKET SYSTEM (ERMS) | 19 |
| 6.1 Description of ERMS | |
| 6.2 Applicability | |
| 6.3 Recordkeeping and Reporting | |
| 6.4 Federal Enforceability | |

1.0 SOURCE IDENTIFICATION

1.1 Source

Kemlite Company, Inc.
23525 West Eames Street
Channahon, Illinois 60410
815/467-8656

I.D. No.: 197800AAX
Standard Industrial Classification: 3089, Plastic Products

1.2 Owner/Parent Company

Crane Company, Inc.
100 First Stamford Place
Stamford, Connecticut 06902

1.3 Operator

Kemlite Company, Inc.
P. O. Box 2429
Joliet, Illinois 60434-2429

Paul Margherio, Environmental Manager
815/467-8656

1.4 General Source Description

Kemlite Company Inc. is located at 23525 West Eames Street in Channahon Township, Will County. The source manufactures fiberglass reinforced plastic panels for use in transportation and recreational vehicles and commercial, industrial, and specialty installation applications. Polyester resin mix and fiberglass reinforcements are the two major components of the panels.

2.0 LIST OF ABBREVIATIONS/ACRONYMS USED IN THIS PERMIT

| | |
|------------------|--|
| ACMA | Alternative Compliance Market Account |
| Act | Illinois Environmental Protection Act [415 ILCS 5/1 et seq.] |
| AP-42 | Compilation of Air Pollutant Emission Factors, Volume 1, Stationary Point and Other Sources (and Supplements A through F), USEPA, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711 |
| ATU | Allotment Trading Unit |
| Btu | British thermal unit |
| CAA | Clean Air Act [42 U.S.C. Section 7401 et seq.] |
| CAAPP | Clean Air Act Permit Program |
| CFR | Code of Federal Regulations |
| cm | centimeter |
| CO | Carbon Monoxide |
| ERMS | Emissions Reduction Market System |
| °F | degrees Fahrenheit |
| ft ³ | cubic foot |
| HAP | Hazardous Air Pollutant |
| hr | hour |
| IAC | Illinois Administrative Code |
| I.D. No. | Identification Number of Source, assigned by Illinois EPA |
| ILCS | Illinois Compiled Statutes |
| Illinois EPA | Illinois Environmental Protection Agency |
| °K | degrees Kelvin |
| kg | kilogram |
| kPa | kilopascal |
| kW | kilowatt |
| lb | pound |
| Mg | megagram |
| mmBtu | Million British thermal units |
| MW | megawatt |
| NESHAP | National Emission Standards for Hazardous Air Pollutants |
| NO _x | Nitrogen Oxides |
| NSPS | New Source Performance Standards |
| PM | Particulate Matter |
| PM ₁₀ | Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 microns as measured by applicable test or monitoring methods |
| ppm | parts per million |
| PSD | Prevention of Significant Deterioration |
| psi | pounds per square inch |
| psia | pounds per square inch absolute |
| RMP | Risk Management Plan |

FINAL DRAFT/PROPOSED CAAPP PERMIT
Kemlite Company Inc.
I.D. No.: 197800AAX
Application No.: 95120140
June 9, 2000

| | |
|-----------------|---|
| SCAQMD | South Coast Air Quality Management District |
| SO ₂ | Sulfur Dioxide |
| T1 | Title I - identifies Title I conditions that have been carried over from an existing permit |
| T1N | Title I New - identifies Title I conditions that are being established in this permit |
| T1R | Title I Revised - identifies Title I conditions that have been carried over from an existing permit and subsequently revised in this permit |
| USEPA | United States Environmental Protection Agency |
| VOL | Volatile Organic Liquid |
| VOM | Volatile Organic Material |
| yr | year |

3.0 INSIGNIFICANT ACTIVITIES

3.1 Identification of Insignificant Activities

The following activities at the source constitute insignificant activities as specified in 35 IAC 201.210:

- 3.1.1 Activities determined by the Illinois EPA to be insignificant activities, pursuant to 35 IAC 201.210(a)(1) and 201.211, as follows:

Fiberglass Choppers (LP-3, LP-6, and LP-7)
Drum Mixing of Color Tints
Titanium Dioxide Slurry System Tanks (One Mix Tank and One Feed Tank)
Exterior Lint Exhaust

- 3.1.2 Activities that are insignificant activities based upon maximum emissions, pursuant to 35 IAC 201.210(a)(2) or (a)(3), as follows:

None

- 3.1.3 Activities that are insignificant activities based upon their type or character, pursuant to 35 IAC 201.210(a)(4) through (18), as follows:

Direct combustion units designed and used for comfort heating purposes and fuel combustion emission units as follows: (A) Units with a rated heat input capacity of less than 2.5 mmBtu/hr that fire only natural gas, propane, or liquefied petroleum gas; (B) Units with a rated heat input capacity of less than 1.0 mmBtu/hr that fire only oil or oil in combination with only natural gas, propane, or liquefied petroleum gas; and (C) Units with a rated heat input capacity of less than 200,000 Btu/hr which never burn refuse, or treated or chemically contaminated wood [35 IAC 201.210(a)(4)].

Gas turbines and stationary reciprocating internal combustion engines of less than 112 kW (150 horsepower) power output [35 IAC 201.210(a)(15)].

- 3.1.4 Activities that are considered insignificant activities pursuant to 35 IAC 201.210(b).

3.2 Compliance with Applicable Requirements

Insignificant activities are subject to applicable requirements notwithstanding status as insignificant activities. In particular, in addition to regulations of general applicability, such as 35 IAC 212.301 and 212.123 (Condition 5.2.2), the Permittee shall comply with the following requirements, as applicable:

- 3.2.1 For each cold cleaning degreaser, the Permittee shall comply with the applicable equipment and operating requirements of 35 IAC 215.182, 218.182, or 219.182.
- 3.2.2 For each particulate matter process emission unit, the Permittee shall comply with the applicable particulate matter emission limit of 35 IAC 212.321 or 212.322. For example, the particulate matter emissions from a process emission unit shall not exceed 0.55 pounds per hour if the emission unit's process weight rate is 100 pounds per hour or less, pursuant to 35 IAC 266.110.
- 3.2.3 For each organic material emission unit that uses organic material, e.g., a mixer or printing line, the Permittee shall comply with the applicable VOM emission limit of 35 IAC 215.301, 218.301, or 219.301, which requires that organic material emissions not exceed 8.0 pounds per hour or do not qualify as photochemically reactive material as defined in 35 IAC 211.4690.

3.3 Addition of Insignificant Activities

- 3.3.1 The Permittee is not required to notify the Illinois EPA of additional insignificant activities present at the source of a type that is identified in Condition 3.1, until the renewal application for this permit is submitted, pursuant to 35 IAC 201.212(a).
- 3.3.2 The Permittee must notify the Illinois EPA of any proposed addition of a new insignificant activity of a type addressed by 35 IAC 201.210(a) and 201.211 other than those identified in Condition 3.1, pursuant to Section 39.5(12)(b) of the Act.

FINAL DRAFT/PROPOSED CAAPP PERMIT
Kemlite Company Inc.
I.D. No.: 197800AAX
Application No.: 95120140
June 9, 2000

3.3.3 The Permittee is not required to notify the Illinois EPA of additional insignificant activities present at the source of a type identified in 35 IAC 201.210(b).

4.0 SIGNIFICANT EMISSION UNITS AT THIS SOURCE

| Emission Unit | Description | Date Constructed | Emission Control Equipment |
|------------------------|---|------------------|----------------------------|
| MR-1 | Mixing Room #1 | 5/1980 | Bin Filters |
| MR-2 | Mixing Room #2 | 5/1985 | Bin Filters |
| LP-3 | Long Panel Process Line (Resin Dispenser and Curing Oven) | 1979 | None |
| LP-6 | Long Panel Process Line (Resin Dispenser and Curing Oven) | 1980 | None |
| LP-7 | Long Panel Process Line (Resin Dispenser and Curing Oven) | 1985 | None |
| SL-1 | Calcium Carbonate Powder Silo #1 | 1979 | Bin Vent Filter |
| SL-2 | Alumina Powder Silo #2 | 1980 | Bin Vent Filter |
| NV-10 | Tank Railroad Car | 5/1980 | None |
| NV-11 | Storage Tank F300 | 5/1980 | None |
| NV-12 | Storage Tank X501 | 5/1980 | None |
| NV-13 | Storage Tank M100 | 5/1980 | None |
| NV-14 | Storage Tank S400 | 5/1980 | None |
| NV-15 | Storage Tank X500 | 5/1980 | None |
| NV-16 | Storage Tank M101 | 5/1980 | None |
| NV-17 | Storage Tank S401 | 5/1980 | None |
| NV-18 | Spare Storage Tank | 5/1980 | None |
| NV-19 | Storage Tank S402 | 5/1980 | None |
| HT-1 | Heater #1 | 8/1990 | None |
| HT-2 | Heater #2 | 8/1990 | None |
| HT-3 | Heater #3 | 8/1990 | None |
| HT-4 | Heater #4 | 8/1990 | None |
| Fugitive VOM Emissions | Cleanup Operations | ---- | None |

5.0 OVERALL SOURCE CONDITIONS

5.1 Source Description

5.1.1 This permit is issued based on the source requiring a CAAPP permit as a major source of VOM emissions.

5.1.2 This permit is issued based on the source being a major source of HAPs.

5.2 Applicable Regulations

5.2.1 Specific emission units at this source are subject to particular regulations as set forth in Section 7 (Unit-Specific Conditions) of this permit.

5.2.2 In addition, emission units at this source are subject to the following regulations of general applicability:

- a. No person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally overhead at a point beyond the property line of the source unless the wind speed is greater than 40.2 kilometers per hour (25 miles per hour), pursuant to 35 IAC 212.301 and 212.314.

Compliance with this requirement is considered to be assured by the inherent nature of operations at this source, as demonstrated by historical operation.

- b.
 - i. This source shall be operated under the provisions of an operating program prepared by the Permittee and submitted to the Illinois EPA for its review. Such operating program shall be designed to significantly reduce fugitive particulate matter emissions [35 IAC 212.309(a)].
 - ii. The operating program shall be amended from time to time by the Permittee so that the operating program is current. Such amendments shall be consistent with the requirements set forth by this Condition and shall be submitted to the Illinois EPA [35 IAC 212.312].

FINAL DRAFT/PROPOSED CAAPP PERMIT

Kemlite Company Inc.

I.D. No.: 197800AAX

Application No.: 95120140

June 9, 2000

iii. All normal traffic pattern roads and parking facilities located at this source shall be paved or treated with water, oils, or chemical dust suppressants. All paved areas shall be cleaned on a regular basis. All areas treated with water, oils, or chemical dust suppressants shall have the treatment applied on a regular basis, as needed, in accordance with the operating program [35 IAC 212.306].

c. 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 the requirements of 35 IAC 212.122, pursuant to 35 IAC 212.123(a), except as allowed by 35 IAC 212.123(b) and 212.124.

5.2.3 The Permittee shall comply with the standards for recycling and emissions reduction of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:

a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.

b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

5.2.4 Risk Management Plan

Should this stationary source, as defined in 40 CFR Section 68.3, become subject to the Accidental Release Prevention regulations in 40 CFR Part 68, then the owner or operator shall submit [40 CFR 68.215(a)(2)(i) and (ii)]:

- a. A compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR 68.10(a); or
 - b. A certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of the Risk Management Plan (RMP), as part of the annual compliance certification required by 40 CFR Part 70 or 71.
- 5.2.5
- a. Should this stationary source become subject to a regulation under 40 CFR Parts 60, 61, or 63, or 35 IAC after the date issued of this permit, then the owner or operator shall, in accordance with the applicable regulation(s), comply with the applicable requirements by the date(s) specified and shall certify compliance with the applicable requirements of such regulation(s) as part of the annual compliance certification, as required by 40 CFR Part 70 or 71.
 - b. No later than upon the submittal for renewal of this permit, the owner or operator shall submit, as part of an application, the necessary information to address either the non-applicability of, or demonstrate compliance with all applicable requirements of any potentially applicable regulation which was promulgated after the date issued of this permit.
- 5.2.6 Episode Action Plan
- a. If the source is required to have an episode action plan pursuant to 35 IAC 244.142, the Permittee shall maintain at the source and have on file with the Illinois EPA a written episode action plan (plan) for reducing the levels of emissions during yellow alerts, red alerts, and emergencies, consistent with safe operating procedures. The plan shall contain the information specified in 35 IAC 244.144.
 - b. The Permittee shall immediately implement the appropriate steps described in this plan should an air pollution alert or emergency be declared.

- c. If a change occurs at the source which requires a revision of the plan (e.g., operational change, change in the source contact person), a copy of the revised plan shall be submitted to the Illinois EPA for review within 30 days of the change. Such plans shall be further revised if disapproved by the Illinois EPA.
- d. For sources required to have a plan pursuant to 35 IAC 244.142, a copy of the original plan and any subsequent revisions shall be sent to:
 - i. Illinois EPA, Compliance Section; and
 - ii. For sources located in Cook County and outside of the city of Chicago: Cook County Department of Environmental Control; or
 - iii. For sources located within the city of Chicago: Chicago Department of Environmental Control.

5.3 Non-Applicability of Regulations of Concern

None

5.4 Source-Wide Operational and Production Limits and Work Practices

In addition to the source-wide requirements in the Standard Permit Conditions in Section 9, the Permittee shall fulfill the following source-wide operational and production limitations and/or work practice requirements:

5.4.1 Usage and VOM content of materials shall not exceed the following limits:

| <u>Material</u> | <u>Plant-wide Material Usage</u> | |
|---------------------|----------------------------------|-------------------|
| | <u>(Percent VOM)</u> | <u>(Ton/Year)</u> |
| Raw Resin | 43 | 38,318 |
| Raw Liquid Styrene | 100 | 5,962 |
| Methyl Methacrylate | 100 | 1,721 |

5.5 Source-Wide Emission Limitations

5.5.1 Permitted Emissions for Fees

The annual emissions from the source, not considering insignificant activities as addressed by Section 3.0 of this permit, shall not exceed the following limitations. The overall source emissions shall be determined by adding emissions from all emission units. Compliance with these limits shall be determined on a calendar year basis. These limitations (Condition 5.5.1) are set for the purpose of establishing fees and are not federally enforceable.

Permitted Emissions of Regulated Pollutants

| Pollutant | Tons/Year |
|------------------------------------|-----------|
| Volatile Organic Material (VOM) | 92.88 |
| Sulfur Dioxide (SO ₂) | ----- |
| Particulate Matter (PM) | 6.94 |
| Nitrogen Oxides (NO _x) | 0.40 |
| HAP, not included in VOM or PM | 25.00 |
| TOTAL | 125.22 |

5.5.2 Emissions of Hazardous Air Pollutants

Source-wide emission limitations for HAPs as listed in Section 112(b) of the CAA are not set. This source is considered to be a major source of HAPs.

5.5.3 Other Source-Wide Emission Limitations

The annual emissions from the source shall not exceed the following limitations:

| Pollutant | Emissions (Tons/Year) | Underlying Rules |
|-----------|--------------------------|--|
| VOM | 99.0 | 35 IAC Part 218, Subparts PP and QQ |

The limits on VOM are limitations established in Permit 80050016. These limits ensure that the affected emission units not subject to the control requirements of 35 IAC Part 218, Subpart PP, Miscellaneous Fabricated Product

Manufacturing Processes and 35 IAC Part 218, Subpart QQ,
Miscellaneous Formulation Manufacturing Processes.

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 (running 12 month
total).

5.6 General Recordkeeping Requirements

5.6.1 Emission Records

The Permittee shall maintain records of the following
items for the source to demonstrate compliance with
Condition 5.5.1, pursuant to Section 39.5(7)(b) of the
Act:

Total annual emissions on a calendar year basis for
the emission units covered by Section 7 (Unit Specific
Conditions) of this permit.

5.6.2 Records for VOM and HAP Emissions

The Permittee shall maintain records of the following
items for the source quantify annual VOM and HAP
emissions, so as to demonstrate compliance with the annual
emission limits in Condition 5.5:

- a. Annual usage (tons) and VOM content of raw resin, raw
liquid styrene, and methyl methacrylate;
- b. Aggregate VOM emissions from emission units included
in Section 7 of this permit and from insignificant
activities included in Section 3 of this permit,
including natural gas combustion units; and
- c. Aggregate HAP emissions from emission units included
in Section 7 of this permit, calculated as a fraction
of VOM emissions according to vapor weight percent.

5.6.3 Records for Operating Scenarios

N/A

5.6.4 Retention and Availability of Records

- a. All records and logs required by this permit shall be retained for at least five years from the date of entry (unless a longer retention period is specified by the particular recordkeeping provision herein), shall be kept at a location at the source that is readily accessible to the Illinois EPA or USEPA, and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request.
- b. The Permittee shall retrieve and print, on paper during normal source office hours, any records retained in an electronic format (e.g., computer) in response to an Illinois EPA or USEPA request for records during the course of a source inspection.

5.7 General Reporting Requirements

5.7.1 General Source-Wide Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of noncompliance of the source with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

Emissions of VOM which exceed the limits in Condition 5.5.3 shall be reported to the Illinois EPA within 30 days of such exceedance.

5.7.2 Annual Emissions Report

The annual emissions report required pursuant to Condition 9.7 shall contain emissions information for the previous calendar year.

5.7.3 Annual Reporting of HAP Emissions

None

5.8 General Operational Flexibility/Anticipated Operating Scenarios

N/A

5.9 General Compliance Procedures

5.9.1 General Procedures for Calculating Emissions

Compliance with the source-wide emission limits specified in Condition 5.5 shall be based on the recordkeeping and reporting requirements of Conditions 5.6 and 5.7, and compliance procedures in Section 7 (Unit Specific Conditions) of this permit.

- a. For the purpose of estimating emissions from the storage tanks, the most recent version of TANKS is acceptable.
- b. For the purpose of estimating HAP emissions from equipment at the source, the vapor weight percent of each HAP for each organic liquid times the VOM emissions contributed by that organic liquid is acceptable.

6.0 EMISSIONS REDUCTION MARKET SYSTEM (ERMS)

6.1 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 IAC 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 IAC 205.500 and 35 IAC 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 IAC 205.710). Sources may also transfer or sell the ATUs that they hold to other sources or participants (35 IAC 205.630).

6.2 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 as identified in Section 3 of this permit. This limitation is established at the request of the source to exempt it from the requirements of 35 IAC Part 205, Emissions Reduction Market System (ERMS), pursuant to 35 IAC 205.205.

6.3 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 Sections 5 and 7 of 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 Sections 5 and 7 of 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 November 30 of each year, reporting actual emissions of VOM during the seasonal allotment period, in accordance with 35 IAC 205.205(b) and 35 IAC 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 IAC Part 205, by holding allotment trading units (ATUs) for its VOM emissions during each seasonal allotment period.

FINAL DRAFT/PROPOSED CAAPP PERMIT
Kemlite Company Inc.
I.D. No.: 197800AAX
Application No.: 95120140
June 9, 2000

6.4 Federal Enforceability

Section 6.0 becomes federally enforceable upon approval of the ERMS by USEPA as part of Illinois' State Implementation Plan.

7.0 UNIT SPECIFIC CONDITIONS

7.1 Polyester Resin Mixing and Production

7.1.1 Description

The mixing room process is a batch operation for the combination of raw materials, resins, monomers, fillers, and additives that become the polyester resin mix used on the long panel production lines. There are three separate sets of batch equipment, one set for each production line. The mixing process consists of weighing materials in the weigh tanks, charging the materials to the mixing tanks where they are agitated until homogenous, then transferring the resin mix to feed tanks.

The three long panel production lines manufacture reinforced plastic panels. Polyester resin mix is pumped from one of the mixing rooms in a closed piping system. One or more components, including catalyst, promoter, or pigment are pumped into the mixture. The mix is then allowed to flow onto a moving sheet of polyester film. A doctoring blade levels the resin to a desired thickness, then chopped fiberglass is distributed on top of the resin mix. This material then travels through compression rolls for desired thickness, and another layer of polyester film is applied to form the finished panel.

The finished panels travel through a set of electric ovens where controlled heat allows the panel to cure to the desired properties. After curing, the panels are cooled, the film is removed, and the edges are trimmed and cut.

7.1.2 List of Emission Units and Air Pollution Control Equipment

| Emission Unit | Description | Emission Control Equipment |
|---------------|---|----------------------------|
| MR-1 | Mixing Room #1 | Bin Filters |
| MR-2 | Mixing Room #2 | Bin Filters |
| LP-3 | Long Panel Process Line (Resin Dispenser and Curing Oven) | None |
| LP-6 | Long Panel Process Line (Resin Dispenser and Curing Oven) | None |
| LP-7 | Long Panel Process Line (Resin Dispenser and Curing Oven) | None |

| Emission Unit | Description | Emission Control Equipment |
|------------------------|--------------------|----------------------------|
| Fugitive VOM Emissions | Cleanup Operations | None |

7.1.3 Applicability Provisions and Applicable Regulations

- a. The "affected polyester resin product manufacturing process" for the purpose of these unit-specific conditions, is a process for manufacturing polyester resin plastic products, as listed in Condition 7.1.2.
- b. Each affected polyester resin product manufacturing process is subject to 35 IAC 218.301, which states that:

No person shall cause or allow the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from any emission unit, with the following exception: If no odor nuisance exists the limitations of 35 IAC 218.301 shall only apply to photochemically reactive material [35 IAC 218.301].

- c. Each affected polyester resin product manufacturing process is subject to 35 IAC 218 Subpart CC: Polyester Resin Manufacturing Process. The requirements of 35 IAC 218 Subpart CC shall apply to a source's polyester resin products manufacturing process emission units and associated handling of materials, cleanup activity, and formulation activity [35 IAC 218.660(a)(2)].
- d. Each affected polyester resin product manufacturing process at the source is subject to 35 IAC 212.321(a), which requires that:

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, 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 subsection (c) of 35 IAC 212.321 (See also Attachment 2) [35 IAC 212.321(a)].

7.1.4 Non-Applicability of Regulations of Concern

- a. An affected polyester resin product manufacturing process is not subject to 35 IAC 218 Subpart PP: Miscellaneous Fabricated Product Manufacturing Process or 35 IAC 218 Subpart QQ: Miscellaneous Formulation Manufacturing Process because the VOM emissions of this source are limited to less than 100 tons per year (see Condition 5.5.3) and the affected polyester resin product manufacturing process is subject to the requirements of 35 IAC 218 Subpart CC.
- b. An affected polyester resin product manufacturing process is not subject to 40 CFR 63, Subparts U and JJJ: National Emission Standards for Hazardous Air Pollutants: Group I and IV Polymers and Resins, because the manufacture of polyester products is not included in these regulations.

7.1.5 Operational And Production Limits And Work Practices

- a. Every owner or operator of an affected polyester resin product manufacturing process shall comply with the operating requirements below:
 - i. Any of the following:
 - A. Use polyester resin material with a monomer content as follows:
 1. For polyester resin materials used for products requiring corrosion resistant or fire retardant materials, a monomer content of no more than 48% by weight as applied [35 IAC 218.666(a)(1)(A)(i)];
 2. For polyester resin materials for products requiring a tensile

strength of 10,000 psi or more,
including tooling resins, a monomer
content of no more than 48% by
weight as applied [35 IAC
218.666(a)(1)(A)(ii)];

3. For clear gel coat, a monomer
content of no more than 50% by
weight as applied [35 IAC
218.666(a)(1)(A)(iii)];
4. For other pigmented gel coats, a
monomer content of no more than 45%
by weight as applied [35 IAC
218.666(a)(1)(A)(iv)]; or
5. For all other polyester resin
materials, a monomer content of no
more than 35% by weight as applied
[35 IAC 218.666(a)(1)(A)(v)].

- B. Use a closed-mold system or pultrusion
system which will result in less than 4%
weight loss of polyester resin materials
[35 IAC 218.666(a)(1)(B)];
- C. Use vapor suppressed polyester resin
approved by the Illinois EPA in the
source's permit such that weight loss from
VOM emissions does not exceed 60 grams per
square meter of exposed surface area
during molding [35 IAC 218.666(a)(1)(C)];
or
- D. Use any materials or processes that are
demonstrated to the satisfaction of the
Illinois EPA to achieve VOM emission
levels equivalent to any of the above.
This alternative must be approved by the
Illinois EPA and the USEPA in a federally
enforceable permit or as a SIP revision
[35 IAC 218.666(a)(1)(D)]. The applicant
is allowed to use the lightweight filler
modified resin. This filler is lower in
density than virgin filler, such that the

monomer content of the mix exceeds 35 percent by weight while the monomer volume percent is the same. The resin's weight loss from VOM emissions shall not exceed 60 grams per square meter of exposed surface area during molding.

- ii. For spraying operations, in addition to the requirements specified in Condition 7.1.5(a)(i), use only high-volume low pressure (HVLP), airless, air-assisted airless, or electrostatic spray equipment, except for touch-up and repair using a hand-held, air-atomized spray gun which has a container for polyester resin material as part of the gun [35 IAC 218.666(a)(2)].
- b. Any owner or operator of an affected polyester resin product manufacturing process shall use closed containers for all polyester resin materials, cleaning materials which contain VOM (including waste cleaning materials), and other materials that contain VOM (including waste resin materials) in such a manner as to effectively control VOM emissions to the atmosphere and in accordance with the practices described in the certification pursuant to 35 IAC 218.672(b)(2)(A) [35 IAC 218.666(b)]:
- c. Any owner or operator of an affected polyester resin products manufacturing process which formulates polyester resin material at the source shall comply with the following operating requirements:
 - i. A cover shall be in place on any tank, vat, or vessel with a capacity greater than 7.5 liters (2 gallons), including a container in which polyester resin materials are delivered to the source, while polyester resin materials are being formulated. The cover shall:
 - A. Completely cover the tank, vat, or vessel opening except for an opening no larger than necessary to allow for safe clearance for a mixer shaft [35 IAC 218.666(c)(1)(A)];

FINAL DRAFT/PROPOSED CAAPP PERMIT

Kemlite Company Inc.

I.D. No.: 197800AAX

Application No.: 95120140

June 9, 2000

- B. Extend at least 1.27 cm (0.5 inch) beyond the outer rim of the opening or be attached to the rim [35 IAC 218.666(c)(1)(B)];
 - C. Remain closed except when adding or removing material or when sampling or inspection procedures require access [35 IAC 218.666(c)(1)(C)]; and
 - D. Be maintained in good condition such that, when in place, the cover maintains contact with the rim of the opening for at least 90% of the circumference of the rim [35 IAC 218.666(c)(1)(D)].
- ii. Carry out emissions shall be minimized when a mixer used for formulation of polyester resin material is being removed from a tank, vat, or vessel containing polyester resin material by allowing the material retained on the mixer blades to drain back into the tank, vat, or vessel before the mixer is completely removed from the tank, vat, or vessel [35 IAC 218.666(c)(2)].
- d. Any owner or operator of affected polyester resin products manufacturing processes which as a group use more than 4 gallons per day of cleaning materials which contain more than 200 grams of VOM per liter (1.7 pound per gallon) shall use a solvent recovery system for such materials. Solvent recovery may be done at the source or by using an off-site commercial solvent recovery service. The waste residue from a solvent recovery system located at the source shall not contain more than 20% VOM by weight [35 IAC 218.666(d)].
- e. Operation of the affected polyester resin product manufacturing process shall not exceed the following limits:

| <u>Emission Unit</u> | <u>Polyester Resin Mixture Usage</u> | |
|----------------------|--------------------------------------|-------------------|
| | <u>(Lb/Hr)</u> | <u>(Ton/Year)</u> |
| LP-3 | 6,400 | 24,000 |
| LP-6 | 6,400 | 24,000 |
| LP-7 | 6,400 | 24,000 |

- f. The product of the as-applied polyester resin mixture monomer vapor pressure and hourly mass feed rate for each resin line, which includes styrene monomer and methyl methacrylate, shall not exceed 20,104 lb*mmHg/hr. This operating factor represents the polyester resin mixture operating scenario with the highest potential to emit VOM.

7.1.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected polyester resin product manufacturing processes are subject to the following:

- a. Emissions from the affected polyester resin product manufacturing process shall not exceed the following limits:

| <u>Emission Unit</u> | <u>VOM Emissions</u> | |
|----------------------|----------------------|-------------------|
| | <u>(Lb/Hr)</u> | <u>(Ton/Year)</u> |
| LP-3 | 7.67 | 28.76 |
| LP-6 | 7.67 | 28.76 |
| LP-7 | 7.67 | 28.76 |
| Mixing Rooms | | |
| #1 and #2 | --- | <u>5.60</u> |
| TOTAL | | 91.88 |

These limits are based on the maximum material usage rates indicated in Condition 7.1.5(e), hourly limits from an emission test report dated May 13, 1992, and maximum hours of operation (7,500 hours per year).

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 (running 12 month total) [T1].

The above limitations were established in Permit 80050016, pursuant to 35 IAC Part 203. These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically 35 IAC Part 203 [T1].

7.1.7 Testing Requirements

a. Testing Methods

- i. The VOM content of fresh cleaning materials shall be determined from supplier data or by sampling and analysis using USEPA Reference Method 24 [35 IAC 218.668(a)(1)].
- ii. The VOM content of waste residue from a solvent recovery system shall be determined by sampling and analysis using USEPA Reference Method 24 [35 IAC 218.668(a)(2)].
- iii. The monomer content of polyester resin materials shall be determined:
 - A. From supplier data and operating data [35 IAC 218.668(a)(3)(A)];
 - B. By sampling and analysis by the methods set forth in SCAQMD Method 312-91 [35 IAC 218.668(a)(3)(B)]; or
 - C. By site-specific sampling and analysis methods approved by the Illinois EPA and USEPA in a federally enforceable permit [35 IAC 218.668(a)(3)(C)].
- iv. The weight loss from polyester resin material in a closed-mold system or pultrusion system during molding shall be determined:
 - A. From supplier data and operating data [35 IAC 218.668(a)(4)(A)];

- B. By testing of VOM emissions by the methods set forth in Condition 7.1.7(a)(iii)(B);
- C. By material balance as follows:

Separately weigh the polyester resin material and the reinforcement material before they are introduced into the mold. Weigh the molded product after it has cooled so that it can be manually handled but no sooner than one hour after removal of the product from the mold. The percent weight loss shall be determined according to the following equation:

$$PWL = \frac{[1 - (C - B)] \times 100}{A}$$

Where:

PWL = Percent Weight Loss;

A = Weight of polyester resin materials;

B = Weight of reinforcement material;

C = Weight of cooled molded product after at least one hour elapsed time [35 IAC 218.668(a)(4)(C)]; or

- D. By site-specific sampling and analysis methods approved by the Illinois EPA and USEPA in a federally enforceable permit [35 IAC 218.668(a)(4)(D)].
- v. The weight loss from a vapor suppressed polyester resin material per square meter of exposed surface area shall be determined:

FINAL DRAFT/PROPOSED CAAPP PERMIT

Kemlite Company Inc.

I.D. No.: 197800AAX

Application No.: 95120140

June 9, 2000

- A. From supplier data and operating data [35 IAC 218.668(a)(5)(A)];
 - B. By sampling and analysis by the methods set forth in SCAQMD Method 309-91 [35 IAC 218.668(a)(5)(B)]; or
 - C. By site-specific sampling and analysis methods approved by the Illinois EPA and USEPA in a federally enforceable permit [35 IAC 218.668(a)(5)(C)].
- vi. In the event of a difference between data obtained by sampling and analysis and other data, the data from sampling and analysis shall govern [35 IAC 218.668(a)(6)].
- b. When in the opinion of the Illinois EPA it is necessary to conduct sampling and analysis to demonstrate compliance with 35 IAC 218.668, the owner or operator of a polyester resin products manufacturing process subject to the requirements of 35 IAC 218 Subpart CC, shall at his own expense, conduct such sampling and analysis in accordance with the applicable test methods and procedures specified in Condition 7.1.7(a). The Illinois EPA's decision to invoke this subsection may be based on such factors including, but not limited to, a change in operation of the polyester resin products manufacturing process, or a reasonable belief that a previous test resulted in erroneous data [35 IAC 218.668(b)].

7.1.8 Monitoring Requirements

None

7.1.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for each affected polyester resin product manufacturing process to demonstrate compliance with Conditions 5.5.1 and 7.1.3, pursuant to Section 39.5(7)(b) of the Act:

FINAL DRAFT/PROPOSED CAAPP PERMIT

Kemlite Company Inc.

I.D. No.: 197800AAX

Application No.: 95120140

June 9, 2000

- a. The owner or operator of an affected polyester resin product manufacturing process shall collect and record the following information to maintain a complete record of all polyester resin materials which are used by such polyester resin products manufacturing process:
 - i. The name and identification number of each polyester resin material used in the process [35 IAC 218.672(a)(2)(A)];
 - ii. The particular operating requirement with which each polyester resin material will comply, the actual monomer content of the material (percent by weight) and other relevant data to show compliance with the operating requirement, including:
 - A. For each polyester resin material which is classified as a material used for products requiring corrosion resistant or fire retardant materials, a material used for products requiring tensile strength of 10,000 psi or more, or a clear gel coat, justification for such classification if the material is applied to comply with the monomer content limitation of Condition 7.1.5(a)(i)(A)(1), (2), or (3), respectively [35 IAC 218.672(a)(2)(B)(i)];
 - B. For each polyester resin material which is applied in a closed-mold or pultrusion system so as to comply with Condition 7.1.5(a)(i)(B), the weight loss from the polyester resin material (percent by weight) during molding [35 IAC 218.672(a)(2)(B)(ii)];
 - C. For each polyester resin material which is vapor suppressed so as to comply with Condition 7.1.5(a)(i)(C), the type and content (percent by weight) of catalyst in the material, the maximum process temperature for resin application, the maximum gel time and the weight loss

(grams per square meter exposed surface)
during molding [35 IAC
218.672(a)(2)(B)(iii)]; and

- D. For each polyester resin material which is approved by the Illinois EPA and the USEPA in a federally enforceable permit or as a SIP revision so as to comply with Condition 7.1.5(a)(i)(D), information showing the VOM emission level which is achieved and the VOM emissions which would result from compliance with Condition 7.1.5(a)(i)(A), (B), or (C) [35 IAC 218.672(a)(2)(B)(iv)].
- iii. A description of the testing which was performed, in accordance with Condition 7.1.7, to determine the monomer content of polyester resin materials and the information in 35 IAC 218.672(a)(1)(C)(ii), (iii) and (iv) and (a)(1)(D), including data, calculations, and descriptions and results of the sampling and analysis that the owner or operator has relied upon to show compliance with Condition 7.1.5(a)(i) [35 IAC 218.672(a)(2)(C)].
- iv. The processes and applications for which each polyester resin material may be used in compliance with applicable operating requirements, including:
- A. For each polyester resin material which is classified as a material used for products requiring corrosion resistant or fire retardant material or a material used for products requiring tensile strength of 10,000 psi or more which is applied to comply with the monomer content limitation of Condition 7.1.5(a)(i)(A)(1) or (2), respectively, the required products or circumstances for the materials' use [35 IAC 218.672(a)(2)(D)(i)];
- B. For each polyester resin material which is applied in a closed-mold or pultrusion

system so as to comply with Condition 7.1.5(a)(i)(B), the required process temperature and minimum mold cycle time or maximum pultrusion speed [35 IAC 218.672(a)(2)(D)(ii)];

- C. For each polyester resin material which is vapor suppressed so as to comply with Condition 7.1.5(a)(i)(C), the required thickness of the manufactured product, the type and amount of catalyst in the resin, and the maximum process temperature and maximum gel time [35 IAC 218.672(a)(2)(D)(iii)]; and
- D. For each polyester resin material which is approved by the Illinois EPA and approved by the USEPA as a SIP revision so as to comply with Condition 7.1.5(a)(i)(D), the required process operating conditions or product specifications [35 IAC 218.672(a)(2)(D)(iv)].
- v. For each polyester resin material which is applied in a spraying operation, the type of spray equipment with which the material will be applied so as to comply with Condition 7.1.5(a)(ii) [35 IAC 218.672(a)(2)(E)].
- b. The owner or operator of an affected polyester resin product manufacturing process shall collect and record all of the following information each day for each process and maintain the information at the source.
 - i. The name, identification number and amount of each polyester resin material applied on each process [35 IAC 218.672(a)(3)(A)]; and
 - ii. The specific data identified pursuant to Condition 7.1.9(a)(iv) to confirm that the polyester resin material was applied in such a manner that it complied with the applicable operating requirement [35 IAC 218.672(a)(3)(B)].

- c. The owner or operator of an affected polyester resin product manufacturing process shall collect and record all the following information and maintain the information at the source:
 - i. The date, time and duration of scheduled inspections performed to confirm the proper use of closed containers to control VOM emissions, and any instances of improper use of closed containers, with descriptions of actual practice and corrective action taken, if any [35 IAC 218.672(b)(2)(A)];
 - ii. Information on a daily basis confirming the proper use of a recovery system if one is required or is used, including operation of a recovery system at the source to produce a waste residue that is 20% or less VOM by weight and information identifying any observation of noncompliance [35 IAC 218.672(b)(2)(B)]; and
 - iii. Information on a daily basis on the use of cleaning materials which contain more than 200 grams of VOM per liter (1.7 pound per gallon) if a recovery system is not required or is not used. This information shall include the name, identification number, amount used and VOM content of each such cleaning material [35 IAC 218.672(b)(2)(C)].

- d. The owner or operator of an affected polyester resin manufacturing process that formulates polyester resin material at the source shall collect and record all the following information and maintain the information at the source:
 - i. The date, time, and duration of scheduled inspections to confirm the proper use and maintenance of covers on vats, vessels, and tanks and proper drainage of mixers and any instance of improper use, with description of actual practice and corrective action taken, if any [35 IAC 218.672(c)(2)(A)]; and

- ii. A maintenance log for covers on vats, vessels, and tanks, detailing all routine and non-routine maintenance performed and initial use of new covers, including dates of such activities [35 IAC 218.672(c)(2)(B)].
- e. The Permittee shall also keep the following records at the source:
 - i. Monomer content (e.g., percent by weight of styrene) in resin and gel coat, and vapor-suppressed on nonvapor-suppressed resin or gel coat;
 - ii. VOM content (weight percent) of any solvent and VOM-containing material used in the plant;
 - iii. Usage of resin, gel coat, solvent, and other VOM-containing materials (lb/month and lb/year);
 - iv. Maximum process weight rate of materials used in the process (lb/hr); and
 - v. Maximum vapor pressure of the as-applied polyester resin mixture monomer.

7.1.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of noncompliance of an affected polyester resin product manufacturing process with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

- a. The owner or operator of an affected polyester resin product manufacturing process shall notify the Illinois EPA:
 - i. Of any violation of the operating requirements of 35 IAC 218 Subpart CC by sending a copy of such record to the Illinois EPA within 30 days

following the occurrence of the violation [35 IAC 218.672(a)(4)(A)]; and

- ii. At least 30 calendar days before changing the method of compliance with the 35 IAC 218 Subpart CC from one operating requirement among Condition 7.1.5(a)(i)(A), (B), or (C) to another operating requirement, of compliance with all requirements of 35 IAC 218.672(a)(1). Upon changing the method of compliance from one operating requirement to another, the owner or operator shall comply with all applicable requirements [35 IAC 218.672(a)(4)(B)].

- b. The owner or operator of an affected polyester resin product manufacturing process shall notify the Illinois EPA:
 - i. Of a violation of the requirements of 35 IAC 218 Subpart CC with respect to handling practices and solvent recovery for cleaning materials by sending a copy of all such records to the Illinois EPA within 30 days following the calendar quarter in which such violation occurred [35 IAC 218.672(b)(3)(A)]; and

 - ii. Within 30 calendar days of changing the handling practices for polyester resin materials, cleaning materials and waste materials or changing source practice with respect to a solvent recovery system for cleaning materials, describing the change [35 IAC 218.672(b)(3)(B)].

- c. The owner or operator of an affected polyester resin product manufacturing process shall notify the Illinois EPA:
 - i. Of a violation of the requirements of 35 IAC Subpart CC with respect to formulation of polyester resin material by sending a copy of all such records to the Illinois EPA within 30 days following the calendar quarter in which

such violation occurred [35 IAC
218.672(c)(3)(A)]; and

- ii. Within 30 calendar days of changing the handling practices for formulation of polyester resin materials, describing the change [35 IAC 218.672(c)(3)(B)].
- d. At least 30 calendar days before changing the method of compliance for an affected polyester resin plastic product manufacturing operation, including the applicable emission factors and calculation methods indicated in Condition 7.1.12, the Permittee shall certify to the Illinois EPA that the polyester resin plastic product manufacturing operation will be in compliance with the applicable limitation of Condition 7.1.6 consistent with the requirements of the compliance certification reports of Condition 9.8.

7.1.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to an affected polyester resin product manufacturing process without prior notification to the Illinois EPA or revision of this permit. This condition does not affect the Permittee's obligation to properly obtain a construction permit in a timely manner for any activity constituting construction or modification of the source, as defined in 35 IAC 201.102:

- a. Usage of various resin, gel coat, or solvent materials without violating the emission limits in Conditions 5.5.1, 5.5.3, and 7.1.6.

7.1.12 Compliance Procedures

Compliance with the emission limits in Conditions 5.5.1 and 7.1.6 shall be determined by the recordkeeping requirements in Condition 7.1.9 and the emission calculation methodology described in (a) and (b) below:

- a. Emissions from resin and/or gel coat usage shall be calculated using the equations below. These equations are based on the assumption that partial pressure and monomer mass feed rate are directly proportional to

VOM emissions. Therefore, the scenario for maximizing emissions is defined by maximizing polyester resin mixture process partial pressure, and styrene monomer and methyl methacrylate feed rates. The constants in the equations below were developed from site specific testing at conditions representative of maximum emissions.

$$E_{HA} = K * \frac{E_{HM}}{K_M}$$

Where:

E_{HA} = Actual hourly emission rate

K = Hourly operating factor defined below
(lb*mmHg/hr)

E_{HM} = Maximum hourly emission rate = 7.67 lb/hr

K_M = Maximum operating factor = 22,104 lb*mmHg/hr
(See Condition 7.1.5(f))

The hourly operating factor (K) shall be calculated as the sum of the product of the individual monomer mass feed rates and the individual monomer partial pressures, using the following equation:

$$K = \sum(MFR_i * X_i * VP_i)$$

Where:

MFR_i = Mass feed rate of individual monomer i

X_i = Mole fraction of component i in the polyester resin mixture

VP_i = Vapor pressure of component i at the resin feed temperature, which may be calculated using Antoine's equation

and the summation is applied over all monomers (including styrene and methyl methacrylate) in the polyester resin mixture.

- b. Emissions from solvent usage (e.g., cleaning materials):

$$\text{VOM Emissions (lb/yr)} = \text{Solvent Usage (gal/yr)} * \text{Solvent Density (lb/gal)}$$

- c. Compliance with the VOM emission limit in Condition 7.1.3(b) shall be determined by the maximum process weight rate (lb/hr) of VOM-containing materials and the emission determination methods of 7.1.12(a) and (b).
- d. Compliance with the operational and control requirements Condition 7.1.3(c) and 7.1.5 shall be determined by the recordkeeping and reporting requirements in Conditions 7.1.9 and 7.1.10.
- e. Compliance with the PM emission limits in Condition 7.1.3(d) is assured and achieved by the proper operation and maintenance of the filters and dust collection system and the work-practices inherent in the operation of an affected polyester resin product manufacturing process.

7.2 Raw Material Storage Silos

7.2.1 Description

Bulk dry fillers are stored in two silos adjacent to the manufacturing building. PM emissions from the silos are minimized through the use of filters on the silo vents.

7.2.2 List of Emission Units and Air Pollution Control Equipment

| Emission Unit | Description | Emission Control Equipment |
|---------------|----------------------------------|----------------------------|
| SL-1 | Calcium Carbonate Powder Silo #1 | Bin Vent Filter |
| SL-2 | Alumina Powder Silo #2 | Bin Vent Filter |

7.2.3 Applicability Provisions and Applicable Regulations

- a. The "affected storage silos" for the purpose of these unit-specific conditions, are vessels used to store dry raw materials, as listed in Condition 7.2.2.
- b. Each affected storage silo is subject to the emission limits identified in Condition 5.2.2.
- c. Each affected storage silo at the source is subject to 35 IAC 212.321(a), which requires that:

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, 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 subsection (c) of 35 IAC 212.321 (See also Attachment 2) [35 IAC 212.321(a)].

7.2.4 Non-Applicability of Regulations of Concern

N/A

7.2.5 Control Requirements

The Permittee shall follow good operating practices for the bin vent filters, including periodic inspection, routine maintenance, prompt repair of defects, and replacement of filters as necessary.

7.2.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected storage silos subject to the following:

- a. Emissions from the affected storage silos shall not exceed the following limits:

| <u>Emission Unit</u> | PM Emissions | |
|----------------------|----------------|-------------------|
| | <u>(Lb/Hr)</u> | <u>(Ton/Year)</u> |
| SL-1 | 0.10 | 0.44 |
| SL-2 | 0.10 | 0.44 |

These limits are based on the negligible PM emissions from the affected storage silos.

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 (running 12 month total) [T1].

The above limitations were established in Permit 80050016, pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 [T1].

7.2.7 Operating Requirements

None

7.2.8 Monitoring Requirements

None

7.2.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected storage silos to demonstrate compliance with Conditions 5.5.1 and 7.2.3, pursuant to Section 39.5(7)(b) of the Act:

- a. Records addressing use of good operating practices for the bin vent filters:
 - i. Records for periodic inspection of the filters with date, individual performing the inspection, and nature of inspection; and
 - ii. Records for prompt repair of defects, with identification and description of defect, effect on emissions, date identified, date repaired, and nature of repair;
- b. Records of the amount of material transferred from the affected storage silos (tons/year); and
- c. The aggregate annual PM emissions from the affected storage silos based on the operating rate and typical emission factors, with supporting calculations.

7.2.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of noncompliance of an affected storage silo with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

- a. The Permittee shall notify the Illinois EPA of emissions of PM in excess of the limits specified in Condition 5.5.1 or fugitive PM emissions in violation of the limits specified in Condition 5.2.2(b) by sending a copy of any record showing a violation to

FINAL DRAFT/PROPOSED CAAPP PERMIT
Kemlite Company Inc.
I.D. No.: 197800AAX
Application No.: 95120140
June 9, 2000

the Illinois within 30 days following the occurrence
of the violation.

7.2.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.2.12 Compliance Procedures

Compliance with the PM emissions limits in Condition 7.2.3
and 7.2.6 is assured by proper operation of the affected
storage silos, as required by Condition 7.2.5. PM
emissions shall be determined by design parameters of the
associated control equipment and/or appropriate emission
factors from the most recent stack test.

7.3 Storage Tanks

7.3.1 Description

Liquid bulk raw materials (including resins, styrene, and methyl methacrylate) are stored in over-the-road type tanker trucks and one railroad tank car permanently parked at the source. These tanks remain on-site at all times, except for off-site cleaning or repair. VOM emissions occur as a result of evaporation of materials during loading and storage.

7.3.2 List of Emission Units and Air Pollution Control Equipment

| Emission Unit | Description | Emission Control Equipment |
|---------------|--------------------|----------------------------|
| NV-10 | Tank Railroad Car | None |
| NV-11 | Storage Tank F300 | None |
| NV-12 | Storage Tank X501 | None |
| NV-13 | Storage Tank M100 | None |
| NV-14 | Storage Tank S400 | None |
| NV-15 | Storage Tank X500 | None |
| NV-16 | Storage Tank M101 | None |
| NV-17 | Storage Tank S401 | None |
| NV-18 | Spare Storage Tank | None |
| NV-19 | Storage Tank S402 | None |

7.3.3 Applicability Provisions and Applicable Regulations

- a. The "affected storage tanks" for the purpose of these unit-specific conditions, are the tanks used to store liquid raw materials, as listed in Condition 7.3.2.
- b. Each affected storage tank is subject to 35 IAC 218.301, which states that:

No person shall cause or allow the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from any emission unit, with the following exception: If no odor nuisance exists the limitations of 35 IAC 218.301 shall only apply to photochemically reactive material [35 IAC 218.301].

- c. Each affected storage tank is subject to the requirements of 35 IAC 218 Subpart B, including 35 IAC 218.122(b).

7.3.4 Non-Applicability of Regulations of Concern

- a. This permit is issued based on the affected storage tanks not being subject to the New Source Performance Standards (NSPS) for Volatile Organic Liquid Storage Vessels, 40 CFR Part 60, Subpart Kb, because the affected storage tanks were constructed, reconstructed, or modified prior to July 23, 1984, which is the applicability date for this regulation.

7.3.5 Control Requirements

- a. Each affected storage tank shall be equipped with a permanent submerged loading pipe or an equivalent device approved by the Illinois EPA according to the provisions of 35 IAC 201, and further process consistent with 35 IAC 218.105, or unless such tank is a pressure tank as described in 35 IAC 218.121(a) or is fitted with a recovery system as described in 35 IAC 218.121(b)(2) [35 IAC 218.122(b)].
- b. If no odor nuisance exists at this source, the limitation of Condition 7.3.5(a) shall only apply to the loading of VOL with a vapor pressure of 17.24 kPa (2.5 psia) or greater at 294 °K (70 °F) [35 IAC 218.122(c)].

7.3.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected storage tanks are subject to the following:

- a. Emissions from the affected storage tanks shall not exceed the following limits:

VOM Emissions
(Ton/Year)

1.0

These limits are based on the maximum emissions from the storage tanks using the emission calculation procedures in Condition 7.3.12.

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 (running 12 month total) [T1].

The above limitations were established in Permit 80050016, pursuant to 35 IAC Part 203. These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically 35 IAC Part 203 [T1].

7.3.7 Operating Requirements

None

7.3.8 Inspection Requirements

None

7.3.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected storage tanks to demonstrate compliance with Conditions 5.5.1 and 7.3.5, pursuant to Section 39.5(7)(b) of the Act:

- a. The Permittee shall maintain records of the following items for each affected storage tank:
 - i. A list of the types of VOL actually stored in the tank and anticipated to be stored in the tank, with date of each change in the list;
 - ii. The properties of each organic liquid stored at the source, as related to emissions, i.e., vapor pressure and molecular weight;
 - iii. The vapor weight percent of each HAP in the organic material emissions for each liquid

determined as the average over the annual range of storage temperature and representative data on the composition of the liquid, with identification of supporting documentation, e.g., USEPA 1992 survey;

- iv. The dimensions of the storage tank and an analysis of capacity of the storage tank. These records shall be retained until the tank is removed from the source [35 IAC 218.129(e) and (f)]; and
 - v. Records indicating compliance with Condition 7.3.5 (e.g., the presence of a submerged loading pipe).
- b. The Permittee shall maintain records of the following items on a monthly basis:
- i. The throughput of each organic liquid through each affected storage tank;
 - ii. The VOM emissions attributable to each organic liquid stored at the source, tons/month, with supporting calculations, calculated utilizing an approved USEPA methodology, such as the current version of the TANKS program;
 - iii. For each HAP identified as present, the total emissions of the individual HAP for all emission units at the source, in tons/month, with supporting calculations; and
 - iv. Total emissions of each individual HAP, and combined HAPs from the source, in tons/month, with supporting calculations.

7.3.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of noncompliance of an affected storage tank with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

- a. The loading organic liquid without the required equipment listed in Condition 7.3.5(a) within five days of becoming aware of the non-compliance status, unless the exemption in Condition 7.3.5(b) applies. This notification shall include a description of the event, the cause for the non-compliance, actions taken to correct the non-compliance, and the steps taken to avoid future non-compliance.
- b. The Permittee shall notify the Illinois EPA of emissions of VOM in excess of the limits specified in Condition 5.5.1 by sending a copy of any record showing a violation to the Illinois within 30 days following the occurrence of the violation.

7.3.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to an affected storage tank without prior notification to the Illinois EPA or revision of this permit. This condition does not affect the Permittee's obligation to properly obtain a construction permit in a timely manner for any activity constituting construction or modification of the source, as defined in 35 IAC 201.102:

- a. Changes in the material stored in a tank, provided the tank continues to comply with the Conditions 5.5.1 and 5.5.3 and Conditions in Section 7.3 of this permit.

7.3.12 Compliance Procedures

- a. Compliance with the requirements in Condition 7.3.5 shall be determined by the recordkeeping and reporting requirements in Condition 7.3.9 and 7.3.10.
- b. Emissions from each affected storage tank shall be determined by the recordkeeping requirements in Condition 7.3.9 and the use of the current version of the TANKS program.

7.4 Fuel Combustion Units

7.4.1 Description

Four natural gas-fired units provide heat for the manufacturing area of the source. Gaseous emissions are formed as waste products from the process of combustion.

7.4.2 List of Emission Units and Air Pollution Control Equipment

| Emission Unit | Description | Emission Control Equipment |
|---------------|-------------|----------------------------|
| HT-1 | Heater #1 | None |
| HT-2 | Heater #2 | None |
| HT-3 | Heater #3 | None |
| HT-4 | Heater #4 | None |

7.4.3 Applicability Provisions and Applicable Regulations

- a. The "affected heaters" for the purpose of these unit-specific conditions, are fuel combustion units used to provide heat, as listed in Condition 7.4.2.
- b. The affected heaters are subject to the opacity limits identified in Condition 5.2.2(c).

7.4.4 Non-Applicability of Regulations of Concern

- a. This permit is issued based on the affected heaters are not being subject to the New Source Performance Standards (NSPS) for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR Part 60, Subpart Dc, because the affected heaters each have a maximum design heat input capacity less than 2.9 MW (10 mmBtu/hr).
- b. This permit is issued based on the affected heaters not being subject to 35 IAC 216.121 for CO emissions, because each affected heater has an actual heat input less than 2.9 MW (10 mmBtu/hr).
- c. This permit is issued based on the affected heaters not being subject to 35 IAC 217.121 for NO_x emissions, because each affected heater has an actual heat input less than 73.2 MW (250 mmBtu/hr).

- d. This permit is issued based on the affected heaters not being subject to 35 IAC 218.301, Use of Organic Material, pursuant to 35 IAC 218.303.

7.4.5 Operational And Production Limits And Work Practices

- a. Natural gas shall be the only fuel fired in the affected heaters.
- b. At all times, the Permittee shall, to the extent practicable, maintain and operate each affected heater, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions.

7.4.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected heaters are subject to the following:

- a. Emissions from the affected heaters shall not exceed the following limits:

| <u>Pollutant</u> | <u>Pollutant Emissions</u> | |
|------------------|----------------------------|-------------------|
| | <u>(Lb/Month)</u> | <u>(Ton/Year)</u> |
| NO _x | 2,650 | 10.6 |
| CO | 525 | 2.1 |
| PM | 125 | 0.5 |
| VOM | 125 | 0.5 |

These limits are based on the maximum firing rates and hours of operation (2,000 hours per year) for the affected heaters.

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 (running 12 month total) [T1].

The above limitations were established in Permit 90080049, pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new

major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 [T1].

7.4.7 Testing Requirements

None

7.4.8 Monitoring Requirements

None

7.4.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected heaters to demonstrate compliance with Condition 5.5.1, pursuant to Section 39.5(7)(b) of the Act:

- a. Total natural gas usage in the affected heaters (ft³/month and ft³/year); and
- b. Annual aggregate NO_x, CO, PM, SO₂, and VOM emissions from the affected heaters, based on fuel consumption and the applicable emission factors, with supporting calculations.

7.4.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of noncompliance of an affected heater with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

- a. Notification within 60 days of operation of an affected heater that may not have been in compliance with the opacity limitations in Condition 5.2.2(c), with a copy of such record for each incident.
- b. Emissions of NO_x, CO, PM, SO₂, or VOM from the affected heaters in excess of the limits specified in Condition 5.5.1 or Condition 7.4.6 based on the

current month's records plus the preceding 11 months
within 30 days of such an occurrence.

7.4.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.4.12 Compliance Procedures

- a. Compliance with Condition 7.4.3(b) is demonstrated under inherent operating conditions of an affected heater, so that no compliance procedures are set in this permit addressing this requirement.
- b. Compliance with the emission limits in Condition 5.5.1 shall be based on the recordkeeping requirements in Condition 7.4.9 and the emission factors and formulas listed below:

| <u>Pollutant</u> | <u>Emission Factor</u> <u>(lb/10⁶ ft³)</u> |
|------------------|---|
| PM | 7.6 |
| SO ₂ | 0.6 |
| VOM | 5.5 |
| NO _x | 100.0 |
| CO | 84.0 |

These are the emission factors for uncontrolled natural gas combustion in small boilers (<100 mmBtu/hr), Tables 1.4-1 and 1.4-2, AP-42, Volume I, Supplement D, March, 1998.

Heater Emissions (lb) = natural gas consumed (ft³) multiplied by the appropriate emission factor.

8.0 GENERAL PERMIT CONDITIONS

8.1 Permit Shield

Pursuant to Section 39.5(7)(j) of the Act, the Permittee has requested and has been granted a permit shield. This permit shield provides that compliance with the conditions of this permit shall be deemed compliance with applicable requirements which were applicable as of the date the proposed permit for this source was issued, provided that either the applicable requirements are specifically identified within this permit, or the Illinois EPA, in acting on this permit application, has determined that other requirements specifically identified are not applicable to this source and this determination (or a concise summary thereof) is included in this permit.

This permit shield does not extend to applicable requirements which are promulgated after _____ **{insert public notice start date}** (the date of issuance of the draft permit) unless this permit has been modified to reflect such new requirements.

8.2 Applicability of Title IV Requirements (Acid Deposition Control)

This source is not an affected source under Title IV of the CAA and is not subject to requirements pursuant to Title IV of the CAA.

8.3 Emissions Trading Programs

No permit revision shall be required for increases in emissions allowed under any USEPA approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for elsewhere in this permit and that are authorized by the applicable requirement [Section 39.5(7)(o)(vii) of the Act].

8.4 Operational Flexibility/Anticipated Operating Scenarios

8.4.1 Changes Specifically Addressed by Permit

Physical or operational changes specifically addressed by the Conditions of this permit that have been identified as not requiring Illinois EPA notification may be implemented without prior notice to the Illinois EPA.

8.4.2 Changes Requiring Prior Notification

The Permittee is authorized to make physical or operational changes that contravene express permit terms without applying for or obtaining an amendment to this permit, provided that [Section 39.5(12)(a)(i) of the Act]:

- a. The changes do not violate applicable requirements;
- b. The changes do not contravene federally enforceable permit terms or conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements;
- c. The changes do not constitute a modification under Title I of the CAA;
- d. Emissions will not exceed the emissions allowed under this permit following implementation of the physical or operational change; and
- e. The Permittee provides written notice to the Illinois EPA, Division of Air Pollution Control, Permit Section, at least 7 days before commencement of the change. This notice shall:
 - i. Describe the physical or operational change;
 - ii. Identify the schedule for implementing the physical or operational change;
 - iii. Provide a statement of whether or not any New Source Performance Standard (NSPS) is applicable to the physical or operational change and the reason why the NSPS does or does not apply;
 - iv. Provide emission calculations which demonstrate that the physical or operational change will not result in a modification; and
 - v. Provide a certification that the physical or operational change will not result in emissions greater than authorized under the Conditions of this permit.

8.5 Testing Procedures

Tests conducted to measure composition of materials, efficiency of pollution control devices, emissions from process or control equipment, or other parameters shall be conducted using standard test methods. Documentation of the test date, conditions, methodologies, calculations, and test results shall be retained pursuant to the recordkeeping procedures of this permit. Reports of any tests conducted as required by this permit or as the result of a request by the Illinois EPA shall be submitted as specified in Condition 8.6.

8.6 Reporting Requirements

8.6.1 Monitoring Reports

If monitoring is required by any applicable requirements or conditions of this permit, a report summarizing the required monitoring results, as specified in the conditions of this permit, shall be submitted to the Air Compliance Section of the Illinois EPA every six months as follows [Section 39.5(7)(f) of the Act]:

| <u>Monitoring Period</u> | <u>Report Due Date</u> |
|--------------------------|------------------------|
| January - June | September 1 |
| July - December | March 1 |

All instances of deviations from permit requirements must be clearly identified in such reports. All such reports shall be certified in accordance with Condition 9.9.

8.6.2 Test Notifications

Unless otherwise specified elsewhere in this permit, a written test plan for any test required by this permit shall be submitted to the Illinois EPA for review at least 60 days prior to the testing pursuant to Section 39.5(7)(a) of the Act. The notification shall include at a minimum:

- a. The name and identification of the affected unit(s);

FINAL DRAFT/PROPOSED CAAPP PERMIT

Kemlite Company Inc.

I.D. No.: 197800AAX

Application No.: 95120140

June 9, 2000

- b. The person(s) who will be performing sampling and analysis and their experience with similar tests;
- c. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the source and any control equipment will be determined;
- d. The specific determination of emissions and operation which are intended to be made, including sampling and monitoring locations;
- e. The test method(s) which will be used, with the specific analysis method, if the method can be used with different analysis methods;
- f. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with justification; and
- g. Any proposed use of an alternative test method, with detailed justification.

8.6.3 Test Reports

Unless otherwise specified elsewhere in this permit, the results of any test required by this permit shall be submitted to the Illinois EPA within 60 days of completion of the testing. The test report shall include at a minimum [Section 39.5(7)(e)(i) of the Act]:

- a. The name and identification of the affected unit(s);
- b. The date and time of the sampling or measurements;
- c. The date any analyses were performed;
- d. The name of the company that performed the tests and/or analyses;
- e. The test and analytical methodologies used;
- f. The results of the tests including raw data, and/or analyses including sample calculations;

- g. The operating conditions at the time of the sampling or measurements; and
- h. The name of any relevant observers present including the testing company's representatives, any Illinois EPA or USEPA representatives, and the representatives of the source.

8.6.4 Reporting Addresses

- a. The following addresses should be utilized for the submittal of reports, notifications, and renewals:
 - i. Illinois EPA - Air Compliance Section

Illinois Environmental Protection Agency
Bureau of Air
Compliance Section (MC 40)
P.O. Box 19276
Springfield, Illinois 62794-9276
 - ii. Illinois EPA - Air Regional Field Office

Illinois Environmental Protection Agency
Division of Air Pollution Control
Eisenhower Tower
1701 South First Avenue
Maywood, Illinois 60153
 - iii. Illinois EPA - Air Permit Section

Illinois Environmental Protection Agency
Division of Air Pollution Control
Permit Section (MC 11)
P.O. Box 19506
Springfield, Illinois 62794-9506
 - iv. USEPA Region 5 - Air Branch

USEPA (AR - 17J)
Air & Radiation Division
77 West Jackson Boulevard
Chicago, Illinois 60604

FINAL DRAFT/PROPOSED CAAPP PERMIT

Kemlite Company Inc.

I.D. No.: 197800AAX

Application No.: 95120140

June 9, 2000

- b. Unless otherwise specified in the particular provision of this permit, reports shall be sent to the Illinois EPA - Air Compliance Section with a copy sent to the Illinois EPA - Air Regional Field Office.

8.7 Obligation to Comply with Title I Requirements

Any term, condition, or requirement identified in this permit by T1, T1R, or T1N is established or revised pursuant to 35 IAC Part 203 or 40 CFR 52.21 ("Title I provisions") and incorporated into this permit pursuant to both Section 39.5 and Title I provisions. Notwithstanding the expiration date on the first page of this permit, the Title I conditions remain in effect pursuant to Title I provisions until the Illinois EPA deletes or revises them in accordance with Title I procedures.

9.0 STANDARD PERMIT CONDITIONS

9.1 Effect of Permit

9.1.1 The issuance of this permit does not release the Permittee from compliance with State and Federal regulations which are part of the Illinois State Implementation Plan, as well as with other applicable statutes and regulations of the United States or the State of Illinois or applicable ordinances, except as specifically stated in this permit and as allowed by law and rule [Section 39.5(7)(j)(iv) of the Act].

9.1.2 In particular, this permit does not alter or affect the following:

- a. The provisions of Section 303 (emergency powers) of the CAA, including USEPA's authority under that Section;
- b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
- c. The applicable requirements of the acid rain program consistent with Section 408(a) of the CAA; and
- d. The ability of USEPA to obtain information from a source pursuant to Section 114 (inspections, monitoring, and entry) of the CAA.

9.1.3 Notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements.

9.2 General Obligations of Permittee

9.2.1 Duty to Comply

The Permittee must comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the CAA and the Act, and is grounds for any or all of the following: enforcement action, permit termination, revocation and reissuance, modification, or

denial of a permit renewal application [Section 39.5(7)(o)(i) of the Act].

The Permittee shall meet applicable requirements that become effective during the permit term in a timely manner unless an alternate schedule for compliance with the applicable requirement is established.

9.2.2 Duty to Maintain Equipment

The Permittee shall maintain all equipment covered under this permit in such a manner that the performance or operation of such equipment shall not cause a violation of applicable requirements.

9.2.3 Duty to Cease Operation

No person shall cause, threaten or allow the continued operation of any emission unit during malfunction or breakdown of the emission unit or related air pollution control equipment if such operation would cause a violation of an applicable emission standard, regulatory requirement, ambient air quality standard or permit limitation unless such malfunction or breakdown is allowed by a permit condition [Section 39.5(6)(c) of the Act].

9.2.4 Disposal Operations

The source shall be operated in such a manner that the disposal of air contaminants collected by the equipment operations, or activities shall not cause a violation of the Act or regulations promulgated thereunder.

9.2.5 Duty to Pay Fees

The Permittee must pay fees to the Illinois EPA consistent with the fee schedule approved pursuant to Section 39.5(18) of the Act, and submit any information relevant thereto [Section 39.5(7)(o)(vi) of the Act]. The check should be payable to "Treasurer, State of Illinois" and sent to: Fiscal Services Section, Illinois Environmental Protection Agency, P.O. Box 19276, Springfield, Illinois 62794-9276.

9.3 Obligation to Allow Illinois EPA Surveillance

Upon presentation of proper credentials and other documents, the Permittee shall allow the Illinois EPA, or an authorized representative to perform the following [Section 39.5(7)(a) and (p)(ii) of the Act and 415 ILCS 5/4]:

- a. Enter upon the Permittee's premises where an actual or potential emission unit is located; where any regulated equipment, operation, or activity is located or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect during hours of operation any sources, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- d. Sample or monitor any substances or parameters at any location:
 - i. At reasonable times, for the purposes of assuring permit compliance; or
 - ii. As otherwise authorized by the CAA, or the Act.
- e. Obtain and remove samples of any discharge or emission of pollutants authorized by this permit; and
- f. Enter and utilize any photographic, recording, testing, monitoring, or other equipment for the purposes of preserving, testing, monitoring, or recording any activity, discharge or emission at the source authorized by this permit.

9.4 Obligation to Comply With Other Requirements

The issuance of this permit does not release the Permittee from applicable State and Federal laws and regulations, and applicable local ordinances addressing subjects other than air pollution control.

9.5 Liability

9.5.1 Title

This permit shall not be considered as in any manner affecting the title of the premises upon which the permitted source is located.

9.5.2 Liability of Permittee

This permit does not release the Permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the sources.

9.5.3 Structural Stability

This permit does not take into consideration or attest to the structural stability of any unit or part of the source.

9.5.4 Illinois EPA Liability

This permit in no manner implies or suggests that the Illinois EPA (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the source.

9.5.5 Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege [Section 39.5(7)(o)(iv) of the Act].

9.6 Recordkeeping

9.6.1 Control Equipment Maintenance Records

A maintenance record shall be kept on the premises for each item of air pollution control equipment. As a minimum, this record shall show the dates of performance and nature of preventative maintenance activities.

9.6.2 Records of Changes in Operation

A record shall be kept describing changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under this permit, and the emissions resulting from those changes [Section 39.5(12)(b)(iv) of the Act].

9.6.3 Retention of Records

- a. Records of all monitoring data and support information shall be retained for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit [Section 39.5(7)(e)(ii) of the Act].
- b. Other records required by this permit shall be retained for a period of at least 5 years from the date of entry unless a longer period is specified by a particular permit provision.

9.7 Annual Emissions Report

The Permittee shall submit an annual emissions report to the Illinois EPA, Compliance Section no later than May 1 of the following year, as required by 35 IAC Part 254.

9.8 Requirements for Compliance Certification

Pursuant to Section 39.5(7)(p)(v) of the Act, the Permittee shall submit annual compliance certifications. The compliance certifications shall be submitted no later than May 1 or more frequently as specified in the applicable requirements or by permit condition. The compliance certifications shall be submitted to the Air Compliance Section, Air Regional Field Office, and USEPA Region 5 - Air Branch. The addresses for the submittal of the compliance certifications are provided in Condition 8.6.4 of this permit.

- a. The certification shall include the identification of each term or condition of this permit that is the basis of the certification; the compliance status; whether compliance

was continuous or intermittent; the method(s) used for determining the compliance status of the source, both currently and over the reporting period consistent with the conditions of this permit.

- b. All compliance certifications shall be submitted to USEPA Region 5 in Chicago as well as to the Illinois EPA.
- c. All compliance reports required to be submitted shall include a certification in accordance with Condition 9.9.

9.9 Certification

Any document (including reports) required to be submitted by this permit shall contain a certification by a responsible official of the Permittee that meets the requirements of Section 39.5(5) of the Act [Section 39.5(7)(p)(i) of the Act]. An example Certification by a Responsible Official is included as an attachment to this permit.

9.10 Defense to Enforcement Actions

9.10.1 Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit [Section 39.5(7)(o)(ii) of the Act].

9.10.2 Emergency Provision

- a. An emergency shall be an affirmative defense to an action brought for noncompliance with the technology-based emission limitations under this permit if the following conditions are met through properly signed, contemporaneous operating logs, or other relevant evidence:
 - i. An emergency occurred as provided in Section 39.5(7)(k) of the Act and the Permittee can identify the cause(s) of the emergency. Normally, an act of God such as lightning or flood is considered an emergency;

FINAL DRAFT/PROPOSED CAAPP PERMIT

Kemlite Company Inc.

I.D. No.: 197800AAX

Application No.: 95120140

June 9, 2000

- ii. The permitted source was at the time being properly operated;
 - iii. The Permittee submitted notice of the emergency to the Illinois EPA within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken; and
 - iv. During the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission limitations, standards, or regulations in this permit.
- b. This provision is in addition to any emergency or upset provision contained in any applicable requirement. This provision does not relieve a Permittee of any reporting obligations under existing federal or state laws or regulations.

9.11 Permanent Shutdown

This permit only covers emission units and control equipment while physically present at the indicated source location(s). Unless this permit specifically provides for equipment relocation, this permit is void for the operation or activity of any item of equipment on the date it is removed from the permitted location(s) or permanently shut down. This permit expires if all equipment is removed from the permitted location(s), notwithstanding the expiration date specified on this permit.

9.12 Reopening and Reissuing Permit for Cause

9.12.1 Permit Actions

This permit may be modified, reopened, and reissued, for cause pursuant to Section 39.5(15) of the Act. The filing of a request by the Permittee for a permit modification, revocation, and reissuance, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition [Section 39.5(7)(o)(iii) of the Act].

9.12.2 Reopening and Revision

This permit must be reopened and revised if any of the following occur [Section 39.5(15)(a) of the Act]:

- a. Additional requirements become applicable to the equipment covered by this permit and three or more years remain before expiration of this permit;
- b. Additional requirements become applicable to an affected source for acid deposition under the acid rain program;
- c. The Illinois EPA or USEPA determines that this permit contains a material mistake or inaccurate statement when establishing the emission standards or limitations, or other terms or conditions of this permit; and
- d. The Illinois EPA or USEPA determines that this permit must be revised to ensure compliance with the applicable requirements of the Act.

9.12.3 Inaccurate Application

The Illinois EPA has issued this permit based upon the information submitted by the Permittee in the permit application. Any misinformation, false statement or misrepresentation in the application shall be grounds for revocation under Section 39.5(15)(b) of the Act.

9.12.4 Duty to Provide Information

The Permittee shall furnish to the Illinois EPA, within a reasonable time specified by the Illinois EPA any information that the Illinois EPA may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to the Illinois EPA copies of records required to be kept by this permit, or for information claimed to be confidential, the Permittee may furnish such records directly to USEPA along with a claim of confidentiality [Section 39.5(7)(o)(v) of the Act].

9.13 Severability Clause

The provisions of this permit are severable, and should any one or more be determined to be illegal or unenforceable, the validity of the other provisions shall not be affected. The rights and obligations of the Permittee shall be construed and enforced as if this permit did not contain the particular provisions held to be invalid and the applicable requirements underlying these provisions shall remain in force [Section 39.5(7)(i) of the Act].

9.14 Permit Expiration and Renewal

The right to operate terminates on the expiration date unless the Permittee has submitted a timely and complete renewal application. For a renewal to be timely it must be submitted no later than 9 and no sooner than 12 months prior to expiration. The equipment may continue to operate during the renewal period until final action is taken by the Illinois EPA, in accordance with the original permit conditions [Section 39.5(5)(l), (n), and (o) of the Act].

FINAL DRAFT/PROPOSED CAAPP PERMIT
Kemlite Company Inc.
I.D. No.: 197800AAX
Application No.: 95120140
June 9, 2000

10.0 ATTACHMENTS

10.1 Attachment 1 - Example Certification by a Responsible Official

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: _____

Name: _____

Official Title: _____

Telephone No.: _____

Date Signed: _____

10.2 Attachment 2 - Particulate Matter Emissions from Process Emission Units

10.2.1 Section 212.321 - Process Emission Units For Which Construction or Modification Commenced On or After April 14, 1972

- a. Except as further provided in 35 IAC 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 subsection (c) of this Section.
- b. Interpolated and extrapolated values of the data in subsection (c) of this Section shall be determined by using the equation:

$$E = A(P)^B$$

Where:

P = Process weight rate; and
E = Allowable emission rate; and,

- i. Up to process weight rates of 408 Mg/hr (450 Ton/hr):

| | Metric | English |
|---|--------|---------|
| P | Mg/hr | Ton/hr |
| E | kg/hr | lbs/hr |
| A | 1.214 | 2.54 |
| B | 0.534 | 0.534 |

- ii. For process weight rate greater than or equal to 408 Mg/hr (450 Ton/hr):

| | Metric | English |
|---|--------|---------|
| P | Mg/hr | Ton/hr |
| E | kg/hr | lbs/hr |
| A | 11.42 | 24.8 |
| B | 0.16 | 0.16 |

c. Limits for Process Emission Units For Which
Construction of Modification Commenced On or After
April 14,1972

| Metric | | English | |
|------------|------------|-------------|-------------|
| P Mg/hr | E kg/hr | P Ton/hr | E lbs/hr |
| 0.05 | 0.25 | 0.05 | 0.55 |
| 0.1 | 0.29 | 0.10 | 0.77 |
| 0.2 | 0.42 | 0.20 | 1.10 |
| 0.3 | 0.64 | 0.30 | 1.35 |
| 0.4 | 0.74 | 0.40 | 1.58 |
| 0.5 | 0.84 | 0.50 | 1.75 |
| 0.7 | 1.00 | 0.75 | 2.40 |
| 0.9 | 1.15 | 1.00 | 2.60 |
| 1.8 | 1.66 | 2.00 | 3.70 |
| 2.7 | 2.1 | 3.00 | 4.60 |
| 3.6 | 2.4 | 4.00 | 5.35 |
| 4.5 | 2.7 | 5.00 | 6.00 |
| 9. | 3.9 | 10.00 | 8.70 |
| 13. | 4.8 | 15.00 | 10.80 |
| 18. | 5.7 | 20.00 | 12.50 |
| 23. | 6.5 | 25.00 | 14.00 |
| 27. | 7.1 | 30.00 | 15.60 |
| 32. | 7.7 | 35.00 | 17.00 |
| 36. | 8.2 | 40.00 | 18.20 |
| 41. | 8.8 | 45.00 | 19.20 |
| 45. | 9.3 | 50.00 | 20.50 |
| 90. | 13.4 | 100.00 | 29.50 |
| 140. | 17.0 | 150.00 | 37.00 |
| 180. | 19.4 | 200.00 | 43.00 |
| 230. | 22. | 250.00 | 48.50 |
| 270. | 24. | 300.00 | 53.00 |
| 320. | 26. | 350.00 | 58.00 |
| 360. | 28. | 400.00 | 62.00 |
| 408. | 30.1 | 450.00 | 66.00 |
| 454. | 30.4 | 500.00 | 67.00 |

Where:

P = Process weight rate in Mg/hr or Ton/hr, and
E = Allowable emission rate in kg/hr or lbs/hr.

JS:jar

I. INTRODUCTION

This source has applied for a Clean Air Act Permit Program (CAAPP) operating permit for its existing operation. The CAAPP is the program established in Illinois for the operating permits for significant stationary sources required by the federal Clean Air Act, as amended in 1990. The conditions in a CAAPP permit are enforceable by both the Illinois Environmental Protection Agency (Illinois EPA) and the USEPA.

Kemlite Company Inc. is located at 23525 West Eames Street in Channahon Township, Will County. The source manufactures fiberglass reinforced plastic panels for use in transportation and recreational vehicles and commercial, industrial, and specialty installation applications. Polyester resin mix and fiberglass reinforcements are the two major components of the panels.

II. EMISSION UNITS

Significant emission units at this source are as follows:

| Emission Unit | Description | Date Constructed | Emission Control Equipment |
|------------------------|---|------------------|----------------------------|
| MR-1 | Mixing Room #1 | 5/1980 | Bin Filters |
| MR-2 | Mixing Room #2 | 5/1985 | Bin Filters |
| LP-3 | Long Panel Process Line (Resin Dispenser and Curing Oven) | 1979 | None |
| LP-6 | Long Panel Process Line (Resin Dispenser and Curing Oven) | 1980 | None |
| LP-7 | Long Panel Process Line (Resin Dispenser and Curing Oven) | 1985 | None |
| SL-1 | Calcium Carbonate Powder Silo #1 | 1979 | Bin Vent Filter |
| SL-2 | Alumina Powder Silo #2 | 1980 | Bin Vent Filter |
| NV-10 | Tank Railroad Car | 5/1980 | None |
| NV-11 | Storage Tank F300 | 5/1980 | None |
| NV-12 | Storage Tank X501 | 5/1980 | None |
| NV-13 | Storage Tank M100 | 5/1980 | None |
| NV-14 | Storage Tank S400 | 5/1980 | None |
| NV-15 | Storage Tank X500 | 5/1980 | None |
| NV-16 | Storage Tank M101 | 5/1980 | None |
| NV-17 | Storage Tank S401 | 5/1980 | None |
| NV-18 | Spare Storage Tank | 5/1980 | None |
| NV-19 | Storage Tank S402 | 5/1980 | None |
| HT-1 | Heater #1 | 8/1990 | None |
| HT-2 | Heater #2 | 8/1990 | None |
| HT-3 | Heater #3 | 8/1990 | None |
| HT-4 | Heater #4 | 8/1990 | None |
| Fugitive VOM Emissions | Cleanup Operations | ---- | None |

III. EMISSIONS

This source is required to have a CAAPP permit since it is a major source of emissions.

For purposes of fees, the source is allowed the following emissions:

Permitted Emissions of Regulated Pollutants

| Pollutant | Tons/Year |
|------------------------------------|-----------|
| Volatile Organic Material (VOM) | 92.88 |
| Sulfur Dioxide (SO ₂) | ----- |
| Particulate Matter (PM) | 6.94 |
| Nitrogen Oxides (NO _x) | 0.40 |
| HAP, not included in VOM or PM | 25.00 |
| TOTAL | 125.22 |

IV. APPLICABLE EMISSION STANDARDS

All emission sources in Illinois must comply with the Illinois Pollution Control Board's emission standards. The Board's emission standards represent the basic requirements for sources in Illinois.

All emission sources in Illinois must comply with the federal New Source Performance Standards (NSPS). The Illinois EPA is administering NSPS in Illinois on behalf of the United States EPA under a delegation agreement.

All emission sources in Illinois must comply with the federal National Emission Standards for Hazardous Air Pollutants (NESHAP). The Illinois EPA is administering NESHAP in Illinois on behalf of the United States EPA under a delegation agreement.

V. PROPOSED PERMIT

CAAPP

A CAAPP permit contains all conditions that apply to a source and a listing of the applicable state and federal air pollution control regulations that are the origin of the conditions. The permit also contains emission limits and appropriate compliance procedures. The appropriate compliance procedures may include inspections, work practices, monitoring, record keeping, and reporting to show compliance with these requirements. The Permittee must carry out these procedures on an on-going basis.

Title I

A combined Title I/CAAPP permit contains terms and conditions established by the Illinois EPA pursuant to authority found in Title I provisions, e.g., 40 CFR 52.21 - federal Prevention of Significant Deterioration (PSD) and 35 IAC Part 203 - Major Stationary Sources Construction and Modification. Notwithstanding the expiration date on the first page of the permit, the Title I conditions remain in effect pursuant to Title I provisions until the Illinois EPA deletes or revises them in accordance with Title I procedures.

VI. REQUEST FOR COMMENTS

It is the Illinois EPA's preliminary determination that this source's permit application meets the standards for issuance of a CAAPP permit. The Illinois EPA is therefore proposing to issue a CAAPP permit, subject to the conditions proposed in the draft permit.

Comments are requested on this proposed action by the Illinois EPA and the proposed conditions on the draft permit. If substantial public interest is shown in this matter, the Illinois EPA will consider holding a public hearing in accordance with 35 Ill. Adm. Code Part 164.