

PROPOSED CAAPP PERMIT
April 18, 2007

217/782-2113

"RENEWAL"
CLEAN AIR ACT PERMIT PROGRAM (CAAPP) PERMIT

PERMITTEE:

Carstin Brands, Inc.
Attn: Sam Petersheim
520 East 2nd Street
Post Office Box 285
Arthur, Illinois 61911

I.D. No.: 041404AAP
Application No.: 95120103

Date Received: June 26, 2005
Date Issued: To Be Determined
Expiration Date¹: To Be Determined

Operation of: Cast Polymer Products Manufacturing
Source Location: 520 East 2nd Street, Arthur, Douglas County, 61911
Responsible Official: Samuel S. Petersheim, Jr., President

This permit is hereby granted to the above-designated Permittee to OPERATE a cast polymer production plant, pursuant to the above referenced permit application. This permit is subject to the conditions contained herein.

If you have any questions concerning this permit, please contact Jonathan Sperry at 217/782-2113.

Edwin C. Bakowski, P.E.
Acting Manager, Permit Section
Division of Air Pollution Control

ECB:JS:psj

cc: Illinois EPA, FOS, Region 3
CES
Lotus Notes

1 Except as provided in Conditions 1.5 and 8.7 of this permit.

TABLE OF CONTENTS

	<u>Page</u>
1.0 INTRODUCTION	4
1.1 Source Identification	
1.2 Owner/Parent Company	
1.3 Operator	
1.4 Source Description	
1.5 Title I Conditions	
2.0 LIST OF ABBREVIATIONS AND ACRONYMS COMMONLY USED	5
3.0 CONDITIONS FOR INSIGNIFICANT ACTIVITIES	6
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 Applicability of Clean Air Act Permit Program (CAAPP)	
5.2 Area Designation	
5.3 Source-Wide Applicable Provisions and Regulations	
5.4 Source-Wide Non-Applicability of Regulations of Concern	
5.5 Source-Wide Control Requirements and Work Practices	
5.6 Source-Wide Production and Emission Limitations	
5.7 Source-Wide Testing Requirements	
5.8 Source-Wide Monitoring Requirements	
5.9 Source-Wide Recordkeeping Requirements	
5.10 Source-Wide Reporting Requirements	
5.11 Source-Wide Operational Flexibility/Anticipated Operating Scenarios	
5.12 Source-Wide Compliance Procedures	
6.0 CONDITIONS FOR EMISSIONS CONTROL PROGRAMS	17
7.0 UNIT SPECIFIC CONDITIONS FOR SPECIFIC EMISSION UNITS	18
7.1 Polyester Resin Storage Tank	
7.2 Continuous Casting Machine and Batch Mixing Stations - Line 1	
7.3 Gel Coat Spray Booth and Curing Oven - Line 1	
7.4 Solid Surface Casting Vacuum Pot Mixer - Line 2	
7.5 Curing Oven - Line 2	
7.6 Marble Casting Process - Lines #3 and #4	
7.7 Gel Coat and Curing Process - Lines #3 and #4	
7.8 Miscellaneous Operations - All Lines	

8.0	GENERAL PERMIT CONDITIONS	57
8.1	Permit Shield	
8.2	Applicability of Title IV Requirements	
8.3	Emissions Trading Programs	
8.4	Operational Flexibility/Anticipated Operating Scenarios	
8.5	Testing Procedures	
8.6	Reporting Requirements	
8.7	Title I Conditions	
9.0	STANDARD PERMIT CONDITIONS	62
9.1	Effect of Permit	
9.2	General Obligations of Permittee	
9.3	Obligation to Allow Illinois EPA Surveillance	
9.4	Obligation to Comply with Other Requirements	
9.5	Liability	
9.6	Recordkeeping	
9.7	Annual Emissions Report	
9.8	Requirements for Compliance Certification	
9.9	Certification	
9.10	Defense to Enforcement Actions	
9.11	Permanent Shutdown	
9.12	Reopening and Reissuing Permit for Cause	
9.13	Severability Clause	
9.14	Permit Expiration and Renewal	
9.15	General Authority for the Terms and Conditions of this Permit	
10.0	ATTACHMENTS	
1	Example Certification by a Responsible Official	1-1
2	Emissions of Particulate Matter from Process Emission Units	2-1
3	Compliance Assurance Monitoring (CAM) Plan	3-1
4	Guidance	4-1
5	Emissions from Polyester Resin Product Fabrication Processes	5-1
6	Unified Emission Factors (UEF)	6-1
7	Plant-wide Summary of VOM Emissions	7-1

1.0 INTRODUCTION

1.1 Source Identification

Carstin Brands, Inc.
520 East 2nd Street
Arthur, Illinois 61911
217/543-3331

I.D. No.: 041404AAP
County: Douglas
Standard Industrial Classification: 3088, Plastic Plumbing Fixtures

1.2 Owner/Parent Company

Sam Petersheim
520 East 2nd Street
Arthur, Illinois 61911

1.3 Operator

Sam Petersheim
520 East 2nd Street
Arthur, Illinois 61911

Samuel S. Petersheim, Jr., President
217/543-3331

1.4 Source Description

The source utilizes batch mixing, casting machines, coating lines, and curing ovens to produce cast polymer products. The primary source of pollutants at this source is the coating line.

Note: This narrative description is for informational purposes only and is not enforceable.

1.5 Title I Conditions

As generally identified below, this CAAPP permit contains certain conditions for emission units at this source that address the applicability of permitting programs for the construction and modification of sources, which programs were established pursuant to Title I of the Clean Air Act (CAA) and regulations thereunder. These programs include PSD and MSSCAM, and are implemented by the Illinois EPA pursuant to Sections 9, 9.1, 39(a) and 39.5(7)(a) of the Illinois Environmental Protection Act (Act). These conditions continue in effect, notwithstanding the expiration date specified on the first page of this permit, as their authority derives from Titles I and V of the CAA, as well as Titles II and X of the Act. (See also Condition 8.7.)

- a. This permit contains Title I conditions that reflect Title I requirements established in permits previously issued for this source, which conditions are specifically designated as "T1."

2.0 LIST OF ABBREVIATIONS AND ACRONYMS COMMONLY USED

acfm	actual cubic foot per minute
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
BACT	Best Available Control Technology
BAT	Best Available Technology
Btu	British thermal unit
CAA	Clean Air Act [42 U.S.C. Section 7401 et seq.]
CAAPP	Clean Air Act Permit Program
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emission Monitoring System
CFA	Composites Fabricators Association
CFR	Code of Federal Regulations
CO	Carbon Monoxide
ERMS	Emissions Reduction Market System
°F	degrees Fahrenheit
ft ³	cubic foot
gal	gallon
HAP	Hazardous Air Pollutant
hr	hour
I.D. No.	Identification Number of Source, assigned by Illinois EPA
IAC	Illinois Administrative Code
ILCS	Illinois Compiled Statutes
Illinois EPA	Illinois Environmental Protection Agency
°K	degrees Kelvin
kg	kilogram
kW	kilowatts
LAER	Lowest Achievable Emission Rate
lb	pound
m	meter
m ³	cubic meter
MACT	Maximum Achievable Control Technology
Mg	megagram
MMA	methyl methacrylate
mmBtu	Million British thermal units
MSDS	Material Safety Data Sheet
MSSCAM	Major Stationary Sources Construction and Modification (35 IAC 203, New Source Review for non-attainment areas)
NESHAP	National Emission Standards for Hazardous Air Pollutants
NMMA	National Marine Manufacturers Association
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
PM _{2.5}	Particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 microns as measured by applicable test or monitoring methods
ppm	parts per million
PSD	Prevention of Significant Deterioration (40 CFR 52.21, New Source Review for attainment areas)
psia	pound per square inch absolute
RMP	Risk Management Plan
SIC	Standard Industrial Classification
SO ₂	Sulfur Dioxide
T	ton
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
VOC	Volatile Organic Compound
VOL	Volatile Organic Liquid
VOM	Volatile Organic Material
yr	year

3.0 CONDITIONS FOR 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:

None

- 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:

- a. 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)].

- 3.1.4 Activities that are considered insignificant activities pursuant to 35 IAC 201.210(b). Note: These activities are not required to be individually listed.

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 5.3.2), the Permittee shall comply with the following requirements, as applicable:

- 3.2.1 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 (see Attachment 2) and 35 IAC Part 266. 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.

- 3.2.2 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, which requires that organic material emissions not exceed 8.0 pounds per hour or, if no odor nuisance exists, do not qualify as photochemically reactive material as defined in 35 IAC 211.4690.
- 3.2.3 For each open burning activity, the Permittee shall comply with 35 IAC Part 237, including the requirement to obtain a permit for open burning in accordance with 35 IAC 237.201, if necessary.
- 3.2.4 For each cold cleaning degreaser, the Permittee shall comply with the applicable equipment and operating requirements of 35 IAC 215.182.

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.
- 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
01	Polyester Resin Storage Tank	Oct. 1992	Submerged Loading Pipe
02	Continuous Casting Machine - Line 1	1994	None
03	Three Batch Mixing Stations - Line 1	May 1990	None
04	Gel Coat Spray Booth and Curing Oven - Line 1	May 1990	Filter
05	Solid Surface Casting Vacuum Pot Mixer - Line 2	Aug. 1994	None
06	Curing Oven - Line 2	Aug. 1994	None
07	Line #3 - Continuous Casting Machine	2004	Low monomer content resin
09	Line #4 - Three Mixing Stations and Batch Casting	2004	Low monomer content resin
08	Line #3 - Gel Coat Spray Booth and Electric Curing Oven	2004	Filter
10	Line #4 - Gel Coat Spray Booth and Electric Curing Oven	2004	Filter
11	Miscellaneous Operations (mold waxes and mold release agents, mold sealers and cleaners, organic peroxide catalyst, miscellaneous cleaning solvents)	-	None

5.0 OVERALL SOURCE CONDITIONS

5.1 Applicability of Clean Air Act Permit Program (CAAPP)

- 5.1.1 This permit is issued based on the source requiring a CAAPP permit as a major source of HAP emissions.
- 5.1.2 This permit is issued based on the source requiring a CAAPP permit because the source is subject to a standard, limitation, or other requirement under Section 112 (HAPs) of the CAA for which USEPA requires a CAAPP permit, pursuant to 40 CFR 70.3(a)(3) [Section 39.5(2)(a)(ii) of the Act]. Specifically, this source is subject to 40 CFR 63, Subpart WWWW, Reinforced Plastic Composites Production.

5.2 Area Designation

This permit is issued based on the source being located in an area that, as of the date of permit issuance, is designated attainment or unclassifiable for the National Ambient Air Quality Standards for all criteria pollutants (CO, lead, NO₂, ozone, PM_{2.5}, PM₁₀, SO₂).

5.3 Source-Wide Applicable Provisions and Regulations

- 5.3.1 Specific emission units at this source are subject to particular regulations as set forth in Section 7 (Unit-Specific Conditions for Specific Emission Units) of this permit.
- 5.3.2 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.
 - b. Pursuant to 35 IAC 212.123(a), no person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to the requirements of 35 IAC 212.122, except as allowed by 35 IAC 212.123(b) and 212.124.
 - c. Pursuant to 35 IAC 214.301, no person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission unit to exceed 2,000 ppm.

5.3.3 Ozone Depleting Substances

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.

5.3.4 Risk Management Plan (RMP)

Should this stationary source, as defined in 40 CFR 68.3, become subject to the federal regulations for Chemical Accident Prevention in 40 CFR Part 68, then the owner or operator shall submit the items below. This condition is imposed in this permit pursuant to 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 RMP, as part of the annual compliance certification required by Condition 9.8.

5.3.5 Future Emission Standards

- a. Should this stationary source become subject to a new or revised regulation under 40 CFR Parts 60, 61, 62, or 63, or 35 IAC Subtitle B 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 Condition 9.8. This permit may also have to be revised or reopened to address such new or revised regulations (see Condition 9.12.2).
- b. This permit and the terms and conditions herein do not affect the Permittee's past and/or continuing obligation with respect to statutory or regulatory requirements governing major source construction or modification under Title I of the CAA. Further, neither the issuance of this permit nor any of the terms or conditions of the permit shall alter or affect the liability of the Permittee for any violation of applicable requirements prior to or at the time of permit issuance.

5.4 Source-Wide Non-Applicability of Regulations of Concern

Source-wide non-applicability of regulations of concern are not set for this source. However, there are unit specific non-applicability of regulations of concern set forth in Section 7 of this permit.

5.5 Source-Wide Control Requirements 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:

5.5.1 Pursuant to Permit 04080029, usage of resin and gel coat in the Line 1 and 2 shall not exceed the following limits:

<u>Materials</u>	<u>Tons/month</u>	<u>Tons/year</u>
Resin	250.0	1,500
Gel coats	20.0	116

Compliance with these limits shall be determined based on recordkeeping and compliance procedures specified in Section 7 for these emission units. [T1]

5.6 Source-Wide Production and Emission Limitations

5.6.1 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 5.6.1) are set for the purpose of establishing fees and are not federally enforceable (see Section 39.5(18) of the Act).

Permitted Emissions of Regulated Pollutants

Pollutant	Tons/Year
Volatile Organic Material (VOM)	95.01
Sulfur Dioxide (SO ₂)	0.01
Particulate Matter (PM)	1.02
Nitrogen Oxides (NO _x)	0.25
HAP, not included in VOM or PM	---
Total	96.28

5.6.2 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.

5.6.3 Other Source-Wide Production and Emission Limitations

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

Equipment	VOM Emissions (Tons/Year)	Underlying Rules
Line 1, Building A (Mixing, Pouring, Spray Booth, and Clean-Up)	52.58	40 CFR 52.21
Line 2, Building D (Mixing, Pouring, and Clean-Up)	17.33	40 CFR 52.21

The limits on VOM are limitations established in Permit 95120145, pursuant to 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 PSD [T1].

- b. The annual emissions from lines 1 and 2 and the polyester resin storage tank (that is, emission units in Sections 7.1-7.5) shall not exceed 69.14 tons per year. This limit was established in Permit 04080029, pursuant to 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 PSD [T1].
- c. 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).

5.7 Source-Wide Testing Requirements

5.7.1 Pursuant to 35 IAC 201.282 and Section 4(b) of the Act, every emission source or air pollution control equipment shall be subject to the following testing requirements for the purpose of determining the nature and quantities of specified air contaminant emissions and for the purpose of determining ground level and ambient air concentrations of such air contaminants:

- a. Testing by Owner or Operator: The Illinois EPA may require the owner or operator of the emission source or air pollution control equipment to conduct such tests in accordance with procedures adopted by the Illinois EPA, at

such reasonable times as may be specified by the Illinois EPA and at the expense of the owner or operator of the emission source or air pollution control equipment. All such tests shall be made by or under the direction of a person qualified by training and/or experience in the field of air pollution testing. The Illinois EPA shall have the right to observe all aspects of such tests [35 IAC 201.282(a)].

- b. Testing by the Illinois EPA: The Illinois EPA shall have the right to conduct such tests at any time at its own expense. Upon request of the Illinois EPA, the owner or operator of the emission source or air pollution control equipment shall provide, without charge to the Illinois EPA, necessary holes in stacks or ducts and other safe and proper testing facilities, including scaffolding, but excluding instruments and sensing devices, as may be necessary [35 IAC 201.282(b)].
- c. Any such tests are also subject to the Testing Procedures of Condition 8.5 set forth in the General Permit Conditions of Section 8.

5.8 Source-Wide Monitoring Requirements

Source-wide monitoring requirements are not set for this source. However, there are provisions for unit specific monitoring set forth in Section 7 of this permit.

5.9 Source-Wide Recordkeeping Requirements

5.9.1 Annual Emission Records

The Permittee shall maintain records of total annual emissions on a calendar year basis for the emission units covered by Section 7 (Unit Specific Conditions for Specific Emission Units) of this permit to demonstrate compliance with Condition 5.6.1, pursuant to Section 39.5(7)(b) of the Act.

5.9.2 Records for Source-Wide Control Requirements and Work Practices

The Permittee shall maintain records of monthly and annual resin and gel coat usage for Lines 1 and 2 (Emission Units 02-06) to demonstrate compliance with Condition 5.5.1, pursuant to Section 39.5(7)(b) of the Act.

5.9.3 Records for HAP Emissions

The Permittee shall maintain records of HAP emissions on a calendar year basis for the emission units covered by Section 7 (Unit Specific Conditions for Specific Emission Units) of this permit, pursuant to Section 39.5(7)(b) of the Act.

5.9.4 Records for Other Source-Wide Emission Limitations

a. General Records for Cast Polymer Products

- i. The operating schedule of each production line;
- ii. The name and identification number of each material used in each production line;
- iii. The usage of each material (lb/month and lb/year);
- iv. The VOM content of each material (weight percent);
and
- v. MSDS for materials used for production.

5.9.5 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.

5.10 Source-Wide Reporting Requirements

5.10.1 General Source-Wide Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of the source with the permit requirements within 30 days, 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. There are also reporting requirements for unit specific emission units set forth in Section 7 of this permit.

5.10.2 Annual Emissions Report

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

5.10.3 Other Source-Wide Reporting Requirements

The Permittee shall notify the Illinois EPA, Air Compliance Unit, of operation of Lines 1 and 2 in excess of the operational limits specified in Condition 5.5.1 within 30 days of such occurrence.

5.11 Source-Wide Operational Flexibility/Anticipated Operating Scenarios

Source-wide operational flexibility is not set for this source. However, there are provisions for unit specific operational flexibility set forth in Section 7 of this permit.

5.12 Source-Wide Compliance Procedures

5.12.1 Procedures for Calculating Emissions

Except as provided in Condition 9.1.3, compliance with the source-wide emission limits specified in Condition 5.6 shall be addressed by the recordkeeping and reporting requirements of Conditions 5.9 and 5.10, and compliance procedures in Section 7 (Unit Specific Conditions for Specific Emission Units) of this permit.

6.0 CONDITIONS FOR EMISSIONS CONTROL PROGRAMS

This section is reserved for emissions control programs. As of the date of issuance of this permit, there are no such programs applicable to this source.

7.0 UNIT SPECIFIC CONDITIONS FOR SPECIFIC EMISSION UNITS

7.1 Polyester Resin Storage Tank

7.1.1 Description

The Permittee operates a fixed roof storage tank to store various resin products.

Note: This narrative description is for informational purposes only and is not enforceable.

7.1.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed	Emission Control Equipment
01	Polyester Resin Storage Tank	Oct. 1992	Submerged Loading Pipe

7.1.3 Applicable Provisions and Regulations

- a. The "affected tank" for the purpose of these unit-specific conditions, is a storage tank that is used to store various resin products, as described in Conditions 7.1.1 and 7.1.2.
- b. The affected tank is subject to 35 IAC 215.122(b). A storage tank is subject to the requirements of 35 IAC 215.122(b) if the tank has a capacity greater than 250 gallons and is used to store a volatile organic liquid with a vapor pressure of 2.5 psia or greater at 70°F.
- c. The affected tank is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Reinforced Plastic Composites Production 40 CFR 63, Subpart WWWW. The affected tank shall comply with all applicable requirements for new or reconstructed equipment in 40 CFR 63, Subpart WWWW, including all applicable work practice standards in the NESHAP 40 CFR 63.5805.

7.1.4 Non-Applicability of Regulations of Concern

- a. The affected tank is not subject to the New Source Performance Standards (NSPS) for Volatile Organic Liquid Storage Tanks, 40 CFR Part 60, Subpart Kb, because the affected tank is less than 40 m³ (approximately 10,000 gallons) in size.
- b. The affected tank is not subject to 35 IAC 215.121 and 35 IAC 215.122(a), because the affected tank is less than 151 m³ (approximately 40,000 gallons) in size.
- c. The affected tank is not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary

Sources, because the affected tank uses a passive control measure, such as a seal, lid, or roof, that is not considered a control device because it acts to prevent the release of pollutants and is subject to a NESHAP proposed after November 15, 1990, pursuant to 40 CFR 64.2(b)(1)(i).

7.1.5 Control Requirements and Work Practices

- a. Each affected tank shall be equipped and operated with a permanent submerged loading pipe or submerged fill, pursuant to 35 IAC 215.122(b). (The Illinois EPA has not approved use of other equivalent equipment in lieu of a permanent submerged loading pipe or submerged fill.)
- b. The Permittee shall keep containers that store HAP-containing materials closed or covered except during the addition or removal of materials. Bulk HAP-containing materials storage tanks may be vented as necessary for safety [40 CFR 63.5805 and Table 4 of Subpart WWWW].

7.1.6 Production and Emission Limitations

Production and emission limitations are not set for the affected tank. However, there are source-wide production and emission limitations set forth in Condition 5.6.

7.1.7 Testing Requirements

Testing requirements are not set for the affected tank. However, there are source-wide testing requirements in Condition 5.7 and general testing requirements in Condition 8.5.

7.1.8 Monitoring Requirements

Monitoring requirements are not set for the affected tank.

7.1.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for the affected tank to demonstrate compliance with Conditions 5.6.1, 7.1.3 and 7.1.5, pursuant to Section 39.5(7)(b) of the Act:

- a. Design information for the tank showing the presence of a permanent submerged loading pipe or submerged fill;
- b. Maintenance and repair records for the tank, as related to the repair or replacement of the permanent submerged loading pipe or submerged fill;
- c. Records of the annual throughput of the affected tank (gal/yr);

- d. Records of vapor pressure of each material stored in the affected tank (psia); and
- e. The annual VOM and HAP emissions from the affected tank based on the material storage and throughput, with supporting calculations and documentation.

7.1.10 Reporting Requirements

a. Reporting of Deviations

The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of the affected 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:

- i. Any storage of VOL in an affected tank that is not in compliance with the control requirements due to absence of the features required by Condition 7.1.5(a), e.g., no "permanent submerged loading pipe," within five days of becoming aware of the non-compliance status. 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.
- ii. Any storage of VOL in an affected tank that is out of compliance with the control requirements (Condition 7.1.5(a)) due to damage, deterioration, or other condition of the permanent submerged loading pipe or submerged fill, within 30 days of becoming aware of the non-compliance status. 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 to be taken to avoid future non-compliance.

7.1.11 Operational Flexibility/Anticipated Operating Scenarios

Operational flexibility is not set for the affected tank.

7.1.12 Compliance Procedures

- a. Compliance with the requirements in Condition 7.1.5 shall be determined by the recordkeeping and reporting requirements in Condition 7.1.9 and 7.1.10.
- b. Emissions from the affected tank shall be determined by the recordkeeping requirements in Condition 7.1.9 and the use of the current version of the USEPA TANKS program or AP-42 emission factors.

7.2 Continuous Casting Machine - Line 1

7.2.1 Description

The Permittee operates three batch mixing stations and a continuous casting machine to mix resin materials and cast resin products into fiberglass molds.

Note: This narrative description is for informational purposes only and is not enforceable.

7.2.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed	Emission Control Equipment
02	Continuous Casting Machine	1994	None
03	3 Batch Mixing Stations	May 1990	None

7.2.3 Applicable Provisions and Regulations

- a. The "affected cultured marble products line" for the purpose of these unit-specific conditions, includes emission units that mix or cast resin products into fiberglass molds, as described in Conditions 7.2.1 and 7.2.2.
- b. The affected cultured marble products line is subject to 35 IAC 212, Subpart L: Particulate Matter from Process Emission Sources, which provides 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 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 35 IAC 212.321 (See also Attachment 2) [35 IAC 212.321(a)].
- c. The affected cultured marble products line is subject to the requirements of 35 IAC 215.301, which provides 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, except as provided in 35 IAC 215.302, 215.303, or 215.304 and the following exemption: If no odor nuisance exists the limitation of 35 IAC 215 Subpart G shall only apply to photochemically reactive material [35 IAC 215.301].
- d. The affected cultured marble products line is subject to the National Emission Standards for Hazardous Air

Pollutants (NESHAP) for Reinforced Plastic Composites Production 40 CFR 63, Subpart WWWW. The affected cultured marble products line shall comply with all applicable requirements for existing equipment in 40 CFR 63, Subpart WWWW.

- i. The Permittee shall comply with all applicable point values for specific open molding streams, pursuant to 40 CFR 63.5797, 63.5798 and 63.5810.
- ii. The Permittee shall comply with all applicable emission limits as required by 40 CFR 63.5805, 63.5810, 63.5835 and 63.5900.
- iii. The Permittee shall comply with all applicable work practice standards in the NESHAP 40 CFR 63.5805.

7.2.4 Non-Applicability of Regulations of Concern

- a. The affected cultured marble products line are not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected cultured marble products line does not use an add-on control device to achieve compliance with an emission limitation or standard and are subject to a NESHAP proposed after November 15, 1990, pursuant to 40 CFR 64.2(b)(1)(i).

7.2.5 Control Requirements and Work Practices

In addition to the source-wide control requirements and work practices set forth in Condition 5.5, the Permittee shall meet the following work practice standards [40 CFR 63.5805 and Table 4 of Subpart WWWW]:

- a. Do not use cleaning solvents that contain HAP, except that styrene may be used as a cleaner in closed systems, and organic HAP containing cleaners may be used to clean cured resin from application equipment. Application equipment includes any equipment that directly contacts resin.
- b. Keep containers that store HAP-containing materials closed or covered except during the addition or removal of materials. Bulk HAP-containing materials storage tanks may be vented as necessary for safety.
- c. Use mixer covers with no visible gaps present in the mixer covers, except that gaps of up to 1 inch are permissible around mixer shafts and any required instrumentation. Except as specified below, keep the mixer covers closed while actual mixing is occurring except when adding materials or changing covers to the mixing vessels.

- i. Containers of 5 gallons or less may be open when active mixing is taking place, or during periods when they are in process.
- ii. For polymer casting mixing operations, containers with a surface area of 500 square inches or less may be open while active mixing is taking place.
- d. Close any mixer vents when actual mixing is occurring, except that venting is allowed during addition of materials, or as necessary prior to adding materials or opening the over for safety.

7.2.6 Production and Emission Limitations

In addition to Condition 5.3.2 and the source-wide emission limitations in Condition 5.6, the affected cultured marble products line is subject to one of the following requirements:

- a. For open molding gel coat, use resins and gel coats that do not exceed the following maximum organic HAP contents [40 CFR 63.5810(d) and Table 3 of Subpart WWWW]:

<u>Material Type</u>	<u>HAP Content Limit</u>	<u>HAP Emission Limit</u>
Clear	44% by weight	522 lb/ton
White/Off-white	30% by weight	267 lb/ton
Pigmented	37% by weight	377 lb/ton

- b. Demonstrate each month that you meet each weighted average of the organic HAP emissions limits above, using the calculation methods in 40 CFR 63.5810(b).

7.2.7 Testing Requirements

- a. The Permittee shall conduct initial compliance demonstration with all applicable requirements in Condition 7.2.3(d), in accordance with 40 CFR 63.5860, no later than April 21, 2006.

7.2.8 Monitoring Requirements

Monitoring requirements are not set for the affected cultured marble products line.

7.2.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for the affected cultured marble products line to demonstrate compliance with Conditions 5.6.1 and 7.2.3 through 7.2.8, pursuant to Section 39.5(7)(b) of the Act:

- a. The monthly material throughput (lb/month).

- b. The VOM and HAP content of each material (weight percent).
- c. The annual VOM and PM emissions from the affected cultured marble products lines based on the material usage, with supporting calculations and documentation.
- d. The Permittee shall comply with all applicable recordkeeping requirements in the NESHAP, 40 CFR 63.5895 and 63.5915.

7.2.10 Reporting Requirements

a. Reporting of Deviations

The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of the affected cultured marble products line 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:

- i. Deviations from emissions limits shall be reported in 30 days.
 - ii. Other deviations shall be reported in quarterly reports.
- b. The Permittee shall comply with all applicable notification and reporting requirements in the NESHAP, 40 CFR 63.5905 and 63.5910.

7.2.11 Operational Flexibility/Anticipated Operating Scenarios

Operational flexibility is not set for the affected cultured marble products line.

7.2.12 Compliance Procedures

- a. Compliance with the PM and VOM emission limitations in Condition 7.2.3 is addressed by the records required in Condition 7.2.9.
- b. VOM and HAP emissions from resin, pigment and catalyst usage shall be based on the recordkeeping requirements in Condition 7.2.9 and the following equations and emission factors, derived from the Unified Emission Factors for Composites (see Attachment 6) or other more appropriate reference published by USEPA. Emissions shall be calculated using actual VOM and HAP contents.

$$\text{Emissions (lb)} = \Sigma(\text{Material Usage (lb)} * \text{Weight \% of VOM or HAP} * \text{Emission Factor}) + \text{Clean-Up Solvent Usage (lb)}$$

7.3 Gel Coat Spray Booth and Curing Oven - Line 1

7.3.1 Description

The Permittee operates a gel coat spray booth to coat fiberglass molds with a gel. The molds are cured in an oven before the resin marble mixture is cast in the molds.

Note: This narrative description is for informational purposes only and is not enforceable.

7.3.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed	Emission Control Equipment
04	Gel Coat Spray Booth and Electric Curing Oven	May 1990	Filter

7.3.3 Applicable Provisions and Regulations

- a. The "affected gel coating line" for the purpose of these unit-specific conditions, is a coating operation that includes a spray booth and drying oven which is used to apply gel coating to a fiberglass substrate, as described in Conditions 7.3.1 and 7.3.2.
- b. The affected gel coating line is subject to 35 IAC 212, Subpart L: Particulate Matter from Process Emission Sources, which provides 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 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 35 IAC 212.321 (See also Attachment 2) [35 IAC 212.321(a)].
- c. The affected gel coating line is subject to the requirements of 35 IAC 215.301, which provides 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, except as provided in 35 IAC 215.302, 215.303, or 215.304 and the following exemption: If no odor nuisance exists the limitation of 35 IAC 215 Subpart G shall only apply to photochemically reactive material [35 IAC 215.301].
- d. The affected gel coating line is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Reinforced Plastic Composites Production 40 CFR 63,

Subpart WWWW. The affected gel coating line shall comply with all applicable requirements for existing equipment in 40 CFR 63, Subpart WWWW.

- i. The Permittee shall comply with all applicable point values for specific open molding process streams, pursuant to 40 CFR 63.5797, 5798 and 5810.
- ii. The Permittee shall comply with all applicable emission limits as required by 40 CFR 63.5805, 63.5810, 63.5835 and 63.5900.
- iii. The Permittee shall comply with all applicable work practice standards in the NESHAP 40 CFR 63.5805.

7.3.4 Non-Applicability of Regulations of Concern

- a. The affected gel coating line is not subject to 35 IAC 215.204, because the affected gel coating line does not apply coating to a substrate included in this regulation.
- b. The affected gel coating line is not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected gel coating line does not use an add-on control device to achieve compliance with a VOM emission limitation or standard and is subject to a NESHAP proposed after November 15, 1990, pursuant to 40 CFR 64.2(b)(1)(i).

7.3.5 Control Requirements and Work Practices

- a. Pursuant to Section 39.5(7)(a) of the Act, the Permittee shall operate, maintain, and replace the filters in a manner that assures compliance with the conditions of this section. An adequate inventory of spare filters shall be maintained.
- b. In addition to the source-wide control requirements and work practices set forth in Condition 5.5, the Permittee shall meet the following work practice standards [40 CFR 63 Subpart WWWW, Table 4]:
 - i. Do not use cleaning solvents that contain HAP, except that styrene may be used as a cleaner in closed systems, and organic HAP containing cleaners may be used to clean cured resin from application equipment. Application equipment includes any equipment that directly contacts resin.
 - ii. Keep containers that store HAP-containing materials closed or covered except during the addition or removal of materials. Bulk HAP-containing materials storage tanks may be vented as necessary for safety.

- iii. Use mixer covers with no visible gaps present in the mixer covers, except that gaps of up to 1 inch are permissible around mixer shafts and any required instrumentation. Except as specified below, keep the mixer covers closed while actual mixing is occurring except when adding materials or changing covers to the mixing vessels.
 - A. Containers of 5 gallons or less may be open when active mixing is taking place, or during periods when they are in process.
 - B. For polymer casting mixing operations, containers with a surface area of 500 square inches or less may be open while active mixing is taking place.
- iv. Close any mixer vents when actual mixing is occurring, except that venting is allowed during addition of materials, or as necessary prior to adding materials or opening the over for safety.

7.3.6 Production and Emission Limitations

In addition to Condition 5.3.2 and the source-wide emission limitations in Condition 5.6, the affected gel coating line is subject to one of the following requirements:

- a. For open molding gel coat, use resins and gel coats that do not exceed the following maximum organic HAP contents [40 CFR 63.5810(d) and Table 3 of Subpart WWWW]:

<u>Material Type</u>	<u>HAP Content Limit</u>	<u>HAP Emission Limit</u>
Clear	44% by weight	522 lb/ton
White/Off-white	30% by weight	267 lb/ton
Pigmented	37% by weight	377 lb/ton

- b. Demonstrate each month that you meet each weighted average of the organic HAP emissions limits above, using the calculation methods in 40 CFR 63.5810(b).

7.3.7 Testing Requirements

- a. Testing for VOM content of coatings and other materials shall be performed as follows [35 IAC 215.208(a) and Section 39.5(7)(b) of the Act]:
 - i. Upon reasonable request by the Illinois EPA, the VOM content of specific coatings and cleaning solvents used on each affected gel coating line shall be determined according to USEPA Reference Method 24 or 24A of 40 CFR 60, Appendix A, and the procedures of 35 IAC 215.105(a).

- ii. This testing may be performed by the supplier of a material provided that the supplier provides appropriate documentation for such testing to the Permittee and the Permittee's records required by Condition 7.3.9 directly reflect the application of such material and separately account for any additions of solvent.
- b. The Permittee shall conduct initial compliance demonstration with all applicable requirements in Condition 7.3.3(d), in accordance with 40 CFR 63.5860, no later than April 21, 2006.

7.3.8 Monitoring Requirements

Pursuant to Section 39.5(7)(d)(ii) of the Act, the Permittee shall visually inspect the filters and check for air flow drop on a regular basis in order to ensure proper operation of the filters and the need for replacement.

7.3.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for the affected gel coating line to demonstrate compliance with Conditions 5.6.1, 7.3.3, 7.3.5, and 7.3.8, pursuant to Section 39.5(7)(b) of the Act:

- a. The name and identification number of each coating as applied on the affected gel coating line.
- b. The monthly and annual usage of each VOM- and HAP-containing material (lb/month and lb/year).
- c. The VOM and HAP content of each material (weight percent).
- d. The operating schedule of the affected gel coating line.
- e. Results of filter inspections and dates of replacements made.
- f. Records of the testing of VOM and HAP content (weight percent) of each coating and cleaning solvent as tested pursuant to the conditions of this section, which include the following [Section 39.5(7)(e) of the Act]:
 - i. Identification of material tested;
 - ii. Results of analysis;
 - iii. Documentation of analysis methodology; and
 - iv. Person performing analysis.

- g. The annual VOM and PM emissions from the affected gel coating line based on the material usage, with supporting calculations and documentation.
- h. The Permittee shall comply with all applicable recordkeeping requirements in the NESHAP, 40 CFR 63.5895 and 63.5915.

7.3.10 Reporting Requirements

a. Reporting of Deviations

The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of the affected gel coating line 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:

- i. Deviations from emissions limits shall be reported in 30 days.
 - ii. Other deviations shall be reported in quarterly reports.
- b. The Permittee shall comply with all applicable notification and reporting requirements in the NESHAP, 40 CFR 63.5905 and 63.5910.

7.3.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to the affected gel coating line 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 coatings, thinners, or cleaning solvents at this source with various VOM contents provided that the materials are tested in accordance with the conditions of this section, the source wide emission limitations in Condition 5.6.1 are not exceeded and the affected gel coating line remains in compliance.

7.3.12 Compliance Procedures

- a. Compliance with the PM emission limitations in Conditions 5.6 and 7.3.3 is addressed by normal work practices and maintenance activities required in Conditions 7.3.5 and 7.3.8 and the records required in Condition 7.3.9.

- b. VOM and HAP emissions from gel coat, resin, pigment and catalyst usage shall be based on the recordkeeping requirements in Condition 7.3.9 and the following equations and emission factors, derived from the Unified Emission Factors for Composites (see Attachment 6) or other more appropriate reference published by USEPA. Emissions shall be calculated using actual VOM and HAP contents.

$$\text{Emissions (lb)} = \Sigma(\text{Material Usage (lb)} * \text{Weight \% of VOM or HAP} * \text{Emission Factor}) + \text{Clean-Up Solvent Usage (lb)}$$

7.4 Solid Surface Casting Vacuum Pot Mixer - Line 2

7.4.1 Description

The Permittee operates a solid surface casting pot mixer to mix resin with a solid surface matrix. This mixture is poured into molds to form a cast object.

Note: This narrative description is for informational purposes only and is not enforceable.

7.4.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed	Emission Control Equipment
05	Solid Surface Casting Vacuum Pot Mixer	Aug. 1994	None

7.4.3 Applicable Provisions and Regulations

- a. The "affected vacuum pot mixer" for the purpose of these unit-specific conditions, is a mixing operation that is used to mix a solid surface matrix with a resin under a vacuum, as described in Conditions 7.4.1 and 7.4.2.
- b. The affected vacuum pot mixer is subject to 35 IAC 212, Subpart L: Particulate Matter from Process Emission Sources, which provides 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 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 35 IAC 212.321 (See also Attachment 2) [35 IAC 212.321(a)].
- c. The affected vacuum pot mixer is subject to the requirements of 35 IAC 215.301, which provides 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, except as provided in 35 IAC 215.302, 215.303, or 215.304 and the following exemption: If no odor nuisance exists the limitation of 35 IAC 215 Subpart G shall only apply to photochemically reactive material [35 IAC 215.301].
- d. The affected vacuum pot mixer is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Reinforced Plastic Composites Production 40 CFR 63, Subpart WWWW. The affected vacuum pot mixer shall comply

with all applicable requirements for existing equipment in 40 CFR 63, Subpart WWWW.

- i. The Permittee shall comply with all applicable point values for specific open molding process streams, pursuant to 40 CFR 63.5797, 5798 and 5810.
- ii. The Permittee shall comply with all applicable emission limits as required by 40 CFR 63.5805, 63.5810, 63.5835 and 63.5900.
- iii. The Permittee shall comply with all applicable work practice standards in the NESHAP 40 CFR 63.5805.

7.4.4 Non-Applicability of Regulations of Concern

- a. The affected vacuum pot mixer is not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected vacuum pot mixer does not use an add-on control device to achieve compliance with an emission limitation or standard and is subject to a NESHAP proposed after November 15, 1990, pursuant to 40 CFR 64.2(b) (1) (i).

7.4.5 Control Requirements and Work Practices

In addition to the source-wide control requirements and work practices set forth in Condition 5.5, the Permittee shall meet the following work practice standards [40 CFR 63 Subpart WWWW, Table 4]:

- a. Do not use cleaning solvents that contain HAP, except that styrene may be used as a cleaner in closed systems, and organic HAP containing cleaners may be used to clean cured resin from application equipment. Application equipment includes any equipment that directly contacts resin.
- b. Keep containers that store HAP-containing materials closed or covered except during the addition or removal of materials. Bulk HAP-containing materials storage tanks may be vented as necessary for safety.
- c. Use mixer covers with no visible gaps present in the mixer covers, except that gaps of up to 1 inch are permissible around mixer shafts and any required instrumentation. Except as specified below, keep the mixer covers closed while actual mixing is occurring except when adding materials or changing covers to the mixing vessels.
 - i. Containers of 5 gallons or less may be open when active mixing is taking place, or during periods when they are in process.

- ii. For polymer casting mixing operations, containers with a surface area of 500 square inches or less may be open while active mixing is taking place.
- d. Close any mixer vents when actual mixing is occurring, except that venting is allowed during addition of materials, or as necessary prior to adding materials or opening the over for safety.

7.4.6 Production and Emission Limitations

In addition to Condition 5.3.2 and the source-wide emission limitations in Condition 5.6, the vacuum pot mixer is subject to one of the following requirements:

- a. For open molding gel coat, use resins and gel coats that do not exceed the following maximum organic HAP contents [40 CFR 63.5810(d) and Table 3 of Subpart WWWW]:

<u>Material Type</u>	<u>HAP Content Limit</u>	<u>HAP Emission Limit</u>
Clear	44% by weight	522 lb/ton
White/Off-white	30% by weight	267 lb/ton
Pigmented	37% by weight	377 lb/ton

- b. Demonstrate each month that you meet each weighted average of the organic HAP emissions limits above, using the calculation methods in 40 CFR 63.5810(b).

7.4.7 Testing Requirements

- a. The Permittee shall conduct initial compliance demonstration with all applicable requirements in Condition 7.4.3(d), in accordance with 40 CFR 63.5860, no later than April 21, 2006.

7.4.8 Monitoring Requirements

Monitoring requirements are not set for the affected vacuum pot mixer.

7.4.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for the affected vacuum pot mixer to demonstrate compliance with Conditions 5.6.1 and 7.4.3 through 7.4.7, pursuant to Section 39.5(7)(b) of the Act:

- a. The monthly material throughput (lb/month).
- b. The VOM and HAP content of each material (weight percent).

- c. The annual VOM and PM emissions from the affected vacuum pot mixer based on the material usage, with supporting calculations and documentation.
- d. The Permittee shall comply with all applicable recordkeeping requirements in the NESHAP, 40 CFR 63.5895 and 63.5915.

7.4.10 Reporting Requirements

a. Reporting of Deviations

The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of the affected vacuum pot mixer 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:

- i. Deviations from emissions limits shall be reported in 30 days.
 - ii. Other deviations shall be reported in quarterly reports.
- b. The Permittee shall comply with all applicable notification and reporting requirements in the NESHAP, 40 CFR 63.5905 and 63.5910.

7.4.11 Operational Flexibility/Anticipated Operating Scenarios

Operational flexibility is not set for the affected vacuum pot mixer.

7.4.12 Compliance Procedures

- a. Compliance with the PM and VOM emission limitations in Condition 7.4.3 is addressed by the records required in Condition 7.4.9.
- b. VOM and HAP emissions from resin, pigment and catalyst usage shall be based on the recordkeeping requirements in Condition 7.4.9 and the following equations and emission factors, derived from the Unified Emission Factors for Composites (see Attachment 6) or other more appropriate reference published by USEPA. Emissions shall be calculated using actual VOM and HAP contents.

$$\text{Emissions (lb)} = \Sigma(\text{Material Usage (lb)} * \text{Weight \% of VOM or HAP} * \text{Emission Factor}) + \text{Clean-Up Solvent Usage (lb)}$$

7.5 Curing Oven - Line 2

7.5.1 Description

Permittee operates a natural gas fired curing oven that cures cast matrix marble parts. This oven has a firing rate of 250,000 Btu.

Note: This narrative description is for informational purposes only and is not enforceable.

7.5.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed	Emission Control Equipment
06	250,000 Btu Natural Gas Fired Curing Oven	Aug. 1994	None

7.5.3 Applicable Provisions and Regulations

- a. The "affected curing oven" for the purpose of these unit-specific conditions, is a natural gas-fired oven used for post curing cast parts, as described in Conditions 7.5.1 and 7.5.2.
- b. 35 IAC 212, Subpart L: Particulate Matter from Process Emission Sources, which provides 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 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 35 IAC 212.321 (See also Attachment 2) [35 IAC 212.321(a)].
- c. The affected curing oven is subject to the requirements of 35 IAC 215.301, which provides 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, except as provided in 35 IAC 215.302, 215.303, or 215.304 and the following exemption: If no odor nuisance exists the limitation of 35 IAC 215 Subpart G shall only apply to photochemically reactive material [35 IAC 215.301].

7.5.4 Non-Applicability of Regulations of Concern

- a. The affected curing oven is not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected curing oven does not use an

add-on control device to achieve compliance with an emission limitation or standard.

7.5.5 Control Requirements and Work Practices

Control requirements and work practices are not set for the affected curing oven.

7.5.6 Production and Emission Limitations

Production and emission limitations are not set for the affected curing oven. However, there are source-wide production and emission limitations set forth in Condition 5.6.

7.5.7 Testing Requirements

Testing requirements are not set for the affected curing oven. However, there are source-wide testing requirements in Condition 5.7 and general testing requirements in Condition 8.5.

7.5.8 Monitoring Requirements

Monitoring requirements are not set for the affected curing oven.

7.5.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for the affected curing oven to demonstrate compliance with Conditions 5.6.1, 7.5.3 and 7.5.5, pursuant to Section 39.5(7)(b) of the Act:

- a. The annual natural gas usage (ft³/year).
- b. The annual NO_x, CO, PM, VOM and SO₂ emissions from the affected curing oven based on the natural gas usage, with supporting calculations and documentation.

7.5.10 Reporting Requirements

a. Reporting of Deviations

The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of the affected curing oven 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:

- i. Emissions of any pollutant from the affected curing oven in excess of the limits specified in Condition 5.6.1 within 30 days of such occurrence.

- ii. Operation of the affected curing oven in excess of the limits specified in Condition 7.5.5 within 30 days of such occurrence.

7.5.11 Operational Flexibility/Anticipated Operating Scenarios

Operational flexibility is not set for the affected curing oven.

7.5.12 Compliance Procedures

- a. Compliance with the PM and VOM emission limitations in Condition 7.5.3 is addressed by the fuel records required in Condition 7.5.9(a) and emission calculations using the emission factor in USEPA's Compilation of Air Pollutant Emission Factors, AP-42, for uncontrolled emissions from a gas-fired boiler.
- b. Emissions from fuel combustions in the affected curing oven shall be based on the recordkeeping requirements in Condition 7.5.9 and the emission factors and formulas listed below:
 - i. Emission factors for the affected curing oven:

<u>Pollutant</u>	<u>Emission Factors</u> <u>(lb/10⁶ ft³)</u>
VOM	5.5
PM	7.6
SO ₂	0.6
NO _x	100
CO	84

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 (dated March 1998).

- ii. Emission formula for the affected curing oven:

$$(\text{Emissions, lb}) = (\text{The Appropriate Emission Factor, lb/10}^6 \text{ ft}^3) \times (\text{Natural Gas Usage, 10}^6 \text{ ft}^3)$$

7.6 Marble Casting Process - Lines #3 and #4

7.6.1 Description

The cultured marble casting process can be either a continuous or batch operation. It involves the mixing of resin materials and casting of the mixed resin into molds to make the desired product. Prior to casting the interior of the mold is prepared with a layer of gel coat (Refer to Section 7.7).

The line #3 has a continuous casting machine and line #4 consists of batch casting.

Note: This narrative description is for informational purposes only and is not enforceable.

7.6.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed	Emission Control Equipment
07	Line #3 - Continuous Casting Machine	2004	Low monomer content resin
09	Line #4 - Three Mixing Stations and Batch Casting	2004	Low monomer content resin

7.6.3 Applicable Provisions and Regulations

- a. The "affected casting operations" for the purpose of these unit-specific conditions, are the casting machines and mixing stations described in Conditions 7.6.1 and 7.6.2.
- b. The affected casting operations are subject to 35 IAC 212, Subpart L: Particulate Matter from Process Emission Sources, which provides 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 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 35 IAC 212.321. [35 IAC 212.321(a)].
- c. The affected casting operations are subject to the requirements of 35 IAC 215.301, which provides 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, except as provided in 35 IAC 215.302, 215.303, or 215.304 and the following exemption: If no odor nuisance exists the limitation of 35 IAC 215

Subpart G shall only apply to photochemically reactive material [35 IAC 215.301].

- d. The affected casting operations are subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Reinforced Plastic Composites Production 40 CFR 63, Subpart WWWW. The affected casting operations shall comply with all applicable requirements for new or reconstructed equipment in 40 CFR 63, Subpart WWWW.
 - i. The Permittee shall comply with all applicable point values for specific open molding streams, pursuant to 40 CFR 63.5797, 63.5798 and 63.5810.
 - ii. The Permittee shall comply with all applicable emission limits as required by 40 CFR 63.5805, 63.5810, 63.5835 and 63.5900.
 - iii. The Permittee shall comply with all applicable work practice standards in the NESHAP 40 CFR 63.5805.

7.6.4 Non-Applicability of Regulations of Concern

- a. The construction of affected casting operations is not subject to the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21, because the source's emissions at the time of construction were less than major source thresholds for purposes of PSD (i.e., less than 250 tons/year). See Attachment 7.
- b. The affected casting operations are not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected casting operations use a passive control measure, such as a low-polluting feedstock, that is not considered a control device because it acts to prevent the pollutants from forming and are subject to a NESHAP proposed after November 15, 1990, pursuant to 40 CFR 64.2(b)(1)(i).

7.6.5 Control Requirements and Work Practices

- a. The Permittee shall follow good operating practices for the affected casting operations, including periodic inspection, routine maintenance and prompt repair of defects. This requirement was established in Permit 04080029.
- b. The Permittee shall meet the following work practice standards [40 CFR 63 Subpart WWWW, Table 4]:
 - i. Do not use cleaning solvents that contain HAP, except that styrene may be used as a cleaner in closed systems, and organic HAP containing cleaners may be used to clean cured resin from application equipment.

Application equipment includes any equipment that directly contacts resin.

- ii. Keep containers that store HAP-containing materials closed or covered except during the addition or removal of materials. Bulk HAP-containing materials storage tanks may be vented as necessary for safety.
- iii. Use mixer covers with no visible gaps present in the mixer covers, except that gaps of up to 1 inch are permissible around mixer shafts and any required instrumentation. Except as specified below, keep the mixer covers closed while actual mixing is occurring except when adding materials or changing covers to the mixing vessels.
 - A. Containers of 5 gallons or less may be open when active mixing is taking place, or during periods when they are in process.
 - B. For polymer casting mixing operations, containers with a surface area of 500 square inches or less may be open while active mixing is taking place.

7.6.6 Production and Emission Limitations

In addition to Condition 5.3.2 and the source-wide emission limitations in Condition 5.6, the affected casting operations are subject to the following:

- a. i. Total amount of resin used in the #3 continuous casting machine and #4 batch pot mixers shall not exceed the following:

<u>Emission Units</u>	<u>(Ton/month)</u>	<u>(Ton/year)</u>
Line #3 - Continuous Casting Machine	166	1,000
Line #4 - Three Mixing Stations and Batch Casting	42	250

- ii. VOM emissions from the affected casting operations shall not exceed the following:

<u>Emission Units</u>	<u>(Ton/month)</u>	<u>(Ton/year)</u>
Line #3 - Continuous Casting Machine	1.0	6.0
Line #4 - Three Mixing Stations and Batch Casting	0.25	2.0

These limits are based on the maximum usage rates allowed above, a maximum styrene content of 29.8%, and an emission factor of 2%.

- iii. 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].
 - iv. The above limitations were established in Permit 04080029, pursuant to 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 PSD [T1].
- b. This permit is issued based on negligible emissions of PM from the affected casting operations. For this purpose, emissions in total shall not exceed 0.1 lb/hr and 0.44 tons/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). These limits were established in Permit 04080029 [T1].
- c. The affected casting operations are also subject to one of the following requirements:
- i. For open molding gel coat, use resins and gel coats that do not exceed the following maximum organic HAP contents [40 CFR 63.5810(d) and Table 3 of Subpart WWWW]:

<u>Material Type</u>	<u>HAP Content Limit</u>	<u>HAP Emission Limit</u>
Clear	44% by weight	522 lb/ton
White/Off-white	30% by weight	267 lb/ton
Pigmented	37% by weight	377 lb/ton

- ii. Demonstrate each month that you meet each weighted average of the organic HAP emissions limits above, using the calculation methods in 40 CFR 63.5810(b).

7.6.7 Testing Requirements

- a. For the affected casting operations, the Permittee shall conduct initial compliance demonstration with all applicable requirements in Condition 7.6.3(d), in accordance with 40 CFR 63.5860, no later than 180 days after initial start up of the affected casting operations.

7.6.8 Monitoring Requirements

Monitoring requirements are not set for the affected casting operations.

7.6.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for the affected casting operations to demonstrate compliance with Conditions 5.6.1 and 7.6.3 through 7.6.8, pursuant to Section 39.5(7)(b) of the Act:

- a. The Permittee shall keep the following records related to material usage for the affected casting operations on Line #3 and #4.
 - i. The name and identification number of each VOM or HAP containing material used.
 - ii. Records of each material usage (lb/mo and lb/yr).
 - iii. The VOM and hazardous air pollutants (HAP) percent by weight content of each material with the source of this information.
- b. Log of inspection and maintenance for the affected casting operations.
- c. The Permittee shall keep the following records related to emissions from Line #3 and Line #4
 - i. A file containing the appropriate emission factors for VOM and HAP.
 - ii. A file demonstrating potential hourly emission rate (lb/hr) of organic material from each emission unit, with supporting calculation.
 - iii. The monthly and aggregate VOM and HAP emissions from each line based on the material usage, with all supporting calculations and documentation.
- d. The Permittee shall comply with all applicable recordkeeping requirements in the NESHAP, 40 CFR 63.5895 and 63.5915.
- e. The Permittee shall keep records of all compliance demonstrations that are performed.

7.6.10 Reporting Requirements

a. Reporting of Deviations

The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of an affected casting operation 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:

- i. Deviations from VOM or HAP emission limits in Condition 7.6.3 or 7.6.6 shall be reported within 30 days of such occurrence.
- ii. Operation of the affected casting operations in excess of the limits specified in Condition 7.6.6(a)(i) within 30 days of such occurrence.
- iii. Other deviations shall be reported in quarterly reports.

- b. The Permittee shall comply with all applicable notification and reporting requirements in the NESHAP, 40 CFR 63.5905 and 63.5910.

7.6.11 Operational Flexibility/Anticipated Operating Scenarios

Operational flexibility is not set for the affected casting operations.

7.6.12 Compliance Procedures

- a. VOM and HAP emissions shall be based on the recordkeeping requirements in Condition 7.6.9 and the following equations and emission factors, derived from the Unified Emission Factors for Composites (see Attachment 6) or other more appropriate reference published by USEPA.

$$\text{Emissions (lb)} = \Sigma(\text{Material Usage (lb)} * \text{Weight \% of VOM or HAP} * \text{Emission Factor}) + \text{Clean-Up Solvent Usage (lb)}$$

7.7 Gel Coat and Curing Process - Lines #3 and #4

7.7.1 Description

Lines #3 and #4 have gel coat spray booths to prepare molds for casting. The gel coat is cured in electrical ovens before the molds are sent to casting operation.

Note: This narrative description is for informational purposes only and is not enforceable.

7.7.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed	Emission Control Equipment
08	Line #3 - Gel Coat Spray Booth and Electric Curing Oven	2004	Filter
10	Line #4 - Gel Coat Spray Booth and Electric Curing Oven	2004	Filter

7.7.3 Applicable Provisions and Regulations

- a. The "affected gel coat operations" for the purpose of these unit-specific conditions, are the gel coat spray booths and corresponding curing ovens described in Conditions 7.7.1 and 7.7.2.
- b. The affected gel coat operations are subject to 35 IAC 212, Subpart L: Particulate Matter from Process Emission Sources, which provides 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 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 35 IAC 212.321. [35 IAC 212.321(a)].
- c. The affected gel coat operations are subject to the requirements of 35 IAC 215.301, which provides 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, except as provided in 35 IAC 215.302, 215.303, or 215.304 and the following exemption: If no odor nuisance exists the limitation of 35 IAC 215 Subpart G shall only apply to photochemically reactive material [35 IAC 215.301].

- d. The affected gel coat operations are subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Reinforced Plastic Composites Production 40 CFR 63, Subpart WWWW. The affected gel coat operations shall comply with all applicable requirements for new or reconstructed equipment in 40 CFR 63, Subpart WWWW.
 - i. The Permittee shall comply with all applicable point values for specific open molding process streams, pursuant to 40 CFR 63.5797, 5798 and 5810.
 - ii. The Permittee shall comply with all applicable emission limits as required by 40 CFR 63.5805, 63.5810, 63.5835 and 63.5900.
 - iii. The Permittee shall comply with all applicable work practice standards in the NESHAP 40 CFR 63.5805.

7.7.4 Non-Applicability of Regulations of Concern

- a. The affected gel coat operations are not subject to 35 IAC 215.204, because the affected gel coat operations do not apply coating to a substrate addressed by this regulation.
- b. The affected gel coat operations are not subject to the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21, because the source's emission at the time of construction were less than major source thresholds for purposes of PSD (i.e., less than 250 tons/year). See Attachment 7.
- c. The affected gel coat operations are not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected gel coat operations do not use an add-on control device to achieve compliance with a VOM emission limitation or standard and are subject to a NESHAP proposed after November 15, 1990, pursuant to 40 CFR 64.2(b) (1) (i).

7.7.5 Control Requirements and Work Practices

- a. The Permittee shall operate, maintain, and replace the filters in accordance with good air pollution control practice. This requirement was established in Permit 04080029.
- b. An adequate inventory of spare filters shall be maintained. This requirement was established in Permit 04080029.
- c. The Permittee shall meet the following work practice standards [40 CFR 63 Subpart WWWW, Table 4]:

- i. Do not use cleaning solvents that contain HAP, except that styrene may be used as a cleaner in closed systems, and organic HAP containing cleaners may be used to clean cured resin from application equipment. Application equipment includes any equipment that directly contacts resin.
- ii. Keep containers that store HAP-containing materials closed or covered except during the addition or removal of materials. Bulk HAP-containing materials storage tanks may be vented as necessary for safety.
- iii. Use mixer covers with no visible gaps present in the mixer covers, except that gaps of up to 1 inch are permissible around mixer shafts and any required instrumentation. Except as specified below, keep the mixer covers closed while actual mixing is occurring except when adding materials or changing covers to the mixing vessels.
 - A. Containers of 5 gallons or less may be open when active mixing is taking place, or during periods when they are in process.
 - B. For polymer casting mixing operations, containers with a surface area of 500 square inches or less may be open while active mixing is taking place.

7.7.6 Production and Emission Limitations

In addition to Condition 5.3.2 and the source-wide emission limitations in Condition 5.6, the affected gel coat operations are subject to the following:

- a. i. Total amount of gel coat used in line #3 and #4 gel coat spray booths shall not exceed 20.0 tons/month and 116.0 tons/year and 5.0 tons/month and 29.0 tons/year, respectively.
- ii. VOM emissions from the affected gel coat operations shall not exceed the following:

<u>Emission Units</u>	<u>(Ton/month)</u>	<u>(Ton/year)</u>
Line #3 - Gel Coat Spray Booth and Electric Curing Oven	5.0	31.0
Line #4 - Gel Coat Spray Booth and Electric Curing Oven	2.0	8.0

These limits are based on the maximum usage rates allowed above, a maximum styrene content of 31% (white) and 38% (clear), a maximum MMA content of

10.1%, and the UEF emission factors listed in Attachment 6.

- iii. 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].
- iv. The above limitations were established in Permit 04080029, pursuant to 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 PSD [T1].
- b. This permit is issued based on negligible emissions of PM. For this purpose emissions, in total shall not exceed 0.1 lb/hr and 0.44 tons/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). These limits were established in Permit 04080029 [T1].
- c. The affected gel coat operations are also subject to one of the following requirements:
 - i. For open molding gel coat, use resins and gel coats that do not exceed the following maximum organic HAP contents [40 CFR 63.5810(d) and Table 3 of Subpart WWWW]:

<u>Material Type</u>	<u>HAP Content Limit</u>	<u>HAP Emission Limit</u>
Clear	44% by weight	522 lb/ton
White/Off-white	30% by weight	267 lb/ton
Pigmented	37% by weight	377 lb/ton

- ii. Demonstrate each month that you meet each weighted average of the organic HAP emissions limits above, using the calculation methods in 40 CFR 63.5810(b).

7.7.7 Testing Requirements

- a. For the affected gel coat operations, the Permittee shall conduct initial compliance demonstration with all applicable requirements in Condition 7.7.3(d), in accordance with 40 CFR 63.5860, no later than 180 days after initial start up.
- b. Testing for VOM and HAP content of coatings and other materials shall be performed as follows.

- i. Upon reasonable request by the Illinois EPA, the VOM and HAP content of specific coatings and cleaning solvents used on the affected gel coat operations shall be determined according to USEPA Reference Method 24 or 24A of 40 CFR 60, Appendix A, and the procedures of 35 IAC 215.105(a).
- ii. This testing may be performed by the supplier of a material provided that the supplier provides appropriate documentation for such testing to the Permittee.

7.7.8 Monitoring Requirements

The Permittee shall visually inspect the filters and check for airflow drop on a regular basis in order to ensure proper operation of the filters and the need for replacement.

7.7.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for the affected gel coat operations to demonstrate compliance with Conditions 5.6.1 and 7.7.3 through 7.7.8, pursuant to Section 39.5(7)(b) of the Act:

- a. The Permittee shall keep the following records related to material usage of the affected gel coat operations on Line #3 and Line #4:
 - i. The name and identification number of each VOM or HAP containing material used;
 - ii. The monthly and annual usage of each material (lb/month and lb/year);
 - iii. The VOM and HAP content of each material (weight percent);
- b. Results of filter inspections and dates of replacements made; and
- c. Records of the testing of VOM and HAP content (weight percent) of each material tested, which include the following:
 - i. Identification of material tested;
 - ii. Results of analysis;
 - iii. Documentation of analysis methodology; and
 - iv. Person performing analysis.

- d. The Permittee shall keep the following records related to emissions from the affected gel coat operations on Line #3 and Line #4.
 - i. A file containing the appropriate emission factors for VOM and HAP.
 - ii. A file demonstrating potential hourly emission rate (lb/hr) of organic material from each unit.
 - iii. The monthly and aggregate VOM and HAP emissions from each line based on the material usage, with all supporting calculations and documentation.
- e. The Permittee shall comply with all applicable recordkeeping requirements in the NESHAP, 40 CFR 63.5895 and 63.5915.

7.7.10 Reporting Requirements

- a. Reporting of Deviations

The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of an affected gel coat operation 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:

- i. Deviations from emissions limits shall be reported in 30 days.
 - ii. Other deviations shall be reported in quarterly reports.
- b. The Permittee shall comply with all applicable notification and reporting requirements in the NESHAP, 40 CFR 63.5905 and 63.5910.

7.7.11 Operational Flexibility/Anticipated Operating Scenarios

Operational flexibility is not set for the affected gel coat operations.

7.7.12 Compliance Procedures

- a. Compliance with Condition 7.7.6(a) shall be based on the recordkeeping requirements in Condition 7.7.9 and the following equations and appropriate emission factors, derived from the Unified Emission Factors for Composites (see Attachment 6) or other more appropriate reference published by USEPA.

$$\text{Emissions (lb)} = \Sigma(\text{Material Usage (lb)} * \text{Weight \% of VOM or HAP} * \text{Emission Factor}) + \text{Clean-Up Solvent Usage (lb)}$$

7.8 Miscellaneous Operations - All Lines

7.8.1 Description

The miscellaneous operations represent the consolidation of all ancillary process that use VOM containing materials, which include mold waxes and mold release agents, mold sealers and cleaners, organic peroxide catalysts and miscellaneous cleaning solvents.

Note: This narrative description is for informational purposes only and is not enforceable.

7.8.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed	Emission Control Equipment
11	Miscellaneous Operations (mold waxes and mold release agents, mold sealers and cleaners, organic peroxide catalyst, miscellaneous cleaning solvents)	-	None

7.8.3 Applicable Provisions and Regulations

- a. The "affected miscellaneous operations" for the purpose of these unit-specific conditions, are the operations described in Conditions 7.8.1 and 7.8.2.
- b. The affected miscellaneous operations are subject to 35 IAC 212, Subpart L: Particulate Matter from Process Emission Sources, which provides 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 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 35 IAC 212.321 [35 IAC 212.321(a)].
- c. The affected miscellaneous operations are subject to the requirements of 35 IAC 215.301, which provides 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, except as provided in 35 IAC 215.302, 215.303, or 215.304 and the following exemption: If no odor nuisance exists the limitation of 35 IAC 215 Subpart G shall only apply to photochemically reactive material [35 IAC 215.301].

- d. This Permit is issued based on the source, including the affected miscellaneous operations, complying with the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Reinforced Plastic Composites Production 40 CFR 63, Subpart WWWW. The affected miscellaneous operations shall comply with all applicable requirements for new or reconstructed equipment in 40 CFR 63, Subpart WWWW.
 - i. The Permittee shall comply with all applicable point values for specific open molding process streams, pursuant to 40 CFR 63.5797, 63.5798 and 63.5810.
 - ii. The Permittee shall comply with all applicable emission limits as required by 40 CFR 63.5805, 63.5810, 63.5835 and 63.5900.
 - iii. The Permittee shall comply with all applicable work practice standards in the NESHAP 40 CFR 63.5805.

7.8.4 Non-Applicability of Regulations of Concern

- a. The affected miscellaneous operations are not subject to the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21, because the source's emission are less than major source thresholds for purposes of PSD (i.e., less than 250 tons/year). See Attachment 7.
- b. The affected miscellaneous operations are not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected miscellaneous operations do not use an add-on control device to achieve compliance with an emission limitation or standard and are subject to a NESHAP proposed after November 15, 1990, pursuant to 40 CFR 64.2(b)(1)(i).

7.8.5 Control Requirements and Work Practices

- a. The Permittee shall operate, maintain, and replace the affected miscellaneous operations in accordance with good air pollution control practice. This requirement was established in Permit 04080029.
- b. The total VOM containing materials usage from the affected miscellaneous operations shall not exceed 1.0 tons/month and 6.0 tons/year. This limit was established in Permit 04080029 [T1].
- c. The Permittee shall meet the following work practice standards [40 CFR 63 Subpart WWWW, Table 4]:
 - i. Do not use cleaning solvents that contain HAP, except that styrene may be used as a cleaner in closed systems, and organic HAP containing cleaners may be

used to clean cured resin from application equipment. Application equipment includes any equipment that directly contacts resin.

- ii. Keep containers that store HAP-containing materials closed or covered except during the addition or removal of materials. Bulk HAP-containing materials storage tanks may be vented as necessary for safety.

7.8.6 Production and Emission Limitations

In addition to Condition 5.3.2 and the source-wide emission limitations in Condition 5.6, the affected miscellaneous operations are subject to the following:

- a. The total VOM emissions from the affected miscellaneous operations shall not exceed 1.0 tons/month and 6.0 tons/year. These limits were established in Permit 04080029 [T1].
- b. This permit is issued based on negligible emissions of PM. For this purpose emissions, in total shall not exceed 0.1 lb/hr and 0.44 tons/year. These limits were established in Permit 04080029 [T1].

7.8.7 Testing Requirements

- a. For the affected miscellaneous operations, the Permittee shall conduct initial compliance demonstration with all applicable requirements in Condition 7.8.3(d), in accordance with 40 CFR 63.5860, no later than 180 days after initial start up.
- b. The following requirements were established in Permit 04080029. Testing for VOM and HAP content of materials used shall be performed as follows.
 - i. Upon reasonable request by the Illinois EPA, the VOM and HAP content of specific coatings and cleaning solvents used on the affected miscellaneous operations shall be determined according to USEPA Reference Method 24 or 24A of 40 CFR 60, Appendix A, and the procedures of 35 IAC 215.105(a).
 - ii. This testing may be performed by the supplier of a material provided that the supplier provides appropriate documentation for such testing to the Permittee.

7.8.8 Monitoring Requirements

Monitoring requirements are not set for the affected miscellaneous operations.

7.8.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for the affected miscellaneous operations to demonstrate compliance with Conditions 5.6.1 and 7.8.3 through 7.8.7, pursuant to Section 39.5(7)(b) of the Act:

- a. The Permittee shall keep the following records for the affected miscellaneous operations:
 - i. The name and identification of each VOM or HAP containing material used;
 - ii. The VOM and HAP content of each material used (weight percent); and
 - iii. The monthly and annual emissions from each affected miscellaneous operation (lb/month and lb/year).
- b. The Permittee shall comply with all applicable recordkeeping, notification and reporting requirements in 40 CFR 63.5905 and 63.5910.
- c. Records of the testing of VOM and HAP content (weight percent) of each material tested pursuant to Condition 7.8.7, which include the following [Section 39.5(7)(e) of the Act]:
 - i. Identification of material tested;
 - ii. Results of analysis;
 - iii. Documentation of analysis methodology; and
 - iv. Person performing analysis.

7.8.10 Reporting Requirements

- a. Reporting of Deviations

The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of an affected miscellaneous operation 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:

- i. Deviations from emissions limits shall be reported in 30 days.
- ii. Other deviations shall be reported in a quarterly report.

7.8.11 Operational Flexibility/Anticipated Operating Scenarios

Operational flexibility is not set for the affected miscellaneous operations.

7.8.12 Compliance Procedures

- a. Compliance with Condition 7.8.6(a) shall be based on the recordkeeping requirements in Condition 7.8.9 and the following equation and appropriate emission factors:

$$\text{Emissions (lb)} = \Sigma(\text{Material Usage (lb)} * \text{Weight \% of VOM or HAP}) + \text{Clean-Up Solvent Usage (lb)}$$

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 _____ (the date of issuance of the proposed 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 if applicable test methods are not specified by the applicable regulations or otherwise identified in the conditions of this permit.

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 Conditions 8.6.3 and 8.6.4.

8.6 Reporting Requirements

8.6.1 Monitoring Reports

Reports summarizing required monitoring as specified in the conditions of this permit shall be submitted to the Illinois EPA

every six months as follows, unless more frequent submittal of such reports is required in Sections 5 or 7 of this permit [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);
- 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 determinations of emissions and operation that are intended to be made, including sampling and monitoring locations;
- e. The test method(s) that 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. Unless otherwise specified in the particular provision of this permit or in the written instructions distributed by the Illinois EPA for particular reports, reports and notifications shall be sent to the Illinois EPA - Air Compliance Unit with a copy sent to the Illinois EPA - Air Regional Field Office.
- b. As of the date of issuance of this permit, the addresses of the offices that should generally be utilized for the submittal of reports and notifications are as follows:

- i. Illinois EPA - Air Compliance Unit

Illinois Environmental Protection Agency
Bureau of Air
Compliance & Enforcement Section (MC 40)
P.O. Box 19276
Springfield, Illinois 62794-9276

- ii. Illinois EPA - Air Quality Planning Section

Illinois Environmental Protection Agency
Bureau of Air
Air Quality Planning Section (MC 39)
P.O. Box 19276
Springfield, Illinois 62794-9276

iii. Illinois EPA - Air Regional Field Office

Illinois Environmental Protection Agency
Division of Air Pollution Control
2009 Mall Street
Collinsville, Illinois 62234

iv. USEPA Region 5 - Air Branch

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

- c. Permit applications should be addressed to the Air Permit Section. As of the date of issuance of this permit, the address of the Air Permit Section is as follows:

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

8.7 Title I Conditions

Notwithstanding the expiration date on the first page of this CAAPP permit, Title I conditions in this permit, which are identified by a T1, T1N, or T1R designation, remain in effect until such time as the Illinois EPA takes action to revise or terminate them in accordance with applicable procedures for action on Title I conditions. This is because these conditions either: (a) incorporate conditions of earlier permits that were issued by the Illinois EPA pursuant to authority that includes authority found in Title I of the CAA (T1 conditions), (b) were newly established in this CAAPP permit pursuant to authority that includes such Title I authority (T1N conditions), or (c) reflect a revision or combination of conditions established in this CAAPP permit (T1R conditions). (See also Condition 1.5.)

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.

9.1.2 In particular, this permit does not alter or affect the following [Section 39.5(7)(j)(iv) of the Act]:

- 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, pursuant to Section 39.5(7)(j) and (p) of the Act, 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, or 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 this permit provides for such continued operation consistent with the Act and applicable Illinois Pollution Control Board regulations [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 there under.

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 as may be required by law and in accordance with constitutional limitations, the Permittee shall allow the Illinois EPA, or an authorized representative to perform the following [Sections 4 and 39.5(7)(a) and (p)(ii) of the Act]:

- 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 applicable requirements; 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 regulated 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. At 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 including any logs, plans, procedures, or instructions required to be kept 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, Air Quality Planning 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 Unit, 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 and applicable regulations [Section 39.5(7)(p)(i) of the Act]. An example Certification by a Responsible Official is included as Attachment 1 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 [Section 39.5(7)(k) of the Act]:

- 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.

Note: For this purpose, emergency means a situation arising from sudden and reasonably unforeseeable events beyond the control of the source, as further defined by Section 39.5(7)(k)(iv) of the Act.

- 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 [Section 39.5(7)(k)(iv) of the Act].

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, revoked, reopened and reissued, or terminated for cause in accordance with applicable provisions of Section 39.5 of the Act. The filing of a request by the Permittee for a permit modification, revocation and reissuance, or termination, 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 that inaccurate statements were made in establishing the emission standards or limitations, or other terms or conditions of this permit.

- d. The Illinois EPA or USEPA determines that this permit must be revised or revoked to ensure compliance with the applicable requirements.

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 and reissuance under Section 39.5(15) of the Act, pursuant to Sections 39.5(5)(e) and (i) 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. In the event of a challenge to any portion of the permit, other portions of the permit may continue to be in effect. Should any portion of this permit be determined to be illegal or unenforceable, the validity of the other provisions shall not be affected and 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

Upon the expiration of this permit, if the source is operated, it shall be deemed to be operating without a permit unless a timely and complete CAAPP application has been submitted for renewal of this permit. However, if a timely and complete application to renew this CAAPP permit has been submitted, the terms and all conditions of this CAAPP permit will remain in effect until the issuance of a renewal permit [Section 39.5(5)(1) and (o) of the Act].

Note: Pursuant to Sections 39.5(5)(h) and (n) of the Act, upon submittal of a timely and complete renewal application, the permitted source may continue to operate until final action is taken by the Illinois EPA on the renewal application, provided, however, that this protection shall cease if the applicant fails to submit any additional information necessary to evaluate or take final action on the renewal

application as requested by the Illinois EPA in writing. For a renewal application to be timely, it must be submitted no later than 9 months prior to the date of permit expiration.

9.15 General Authority for the Terms and Conditions of this Permit

The authority for terms and conditions of this permit that do not include a citation for their authority is Section 39.5(7)(a) of the Act, which provides that the Illinois EPA shall include such provisions in a CAAPP permit as are necessary to accomplish the purposes of the Act and to assure compliance with all applicable requirements. Section 39.5(7)(a) of the Act is also another basis of authority for terms and conditions of this permit that do include a specific citation for their authority.

Note: This condition is included in this permit pursuant to Section 39.5(7)(n) of the Act.

10.0 ATTACHMENTS

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: _____

Attachment 2 Emissions of Particulate Matter from Process Emission Units

- a. New Process Emission Units for Which Construction or Modification Commenced On or After April 14, 1972 [35 IAC 212.321].
- i. 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 35 IAC 212.321 [35 IAC 212.321(a)].
- ii. Interpolated and extrapolated values of the data in subsection (c) of 35 IAC 212.321 shall be determined by using the equation [35 IAC 212.321(b)]:

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

where:

P = Process weight rate; and

E = Allowable emission rate; and,

A. Up to process weight rates of 408 Mg/hr (450 T/hr):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lb/hr
A	1.214	2.54
B	0.534	0.534

B. For process weight rate greater than or equal to 408 Mg/hr (450 T/hr):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lb/hr
A	11.42	24.8
B	0.16	0.16

iii. Limits for Process Emission Units For Which Construction or Modification Commenced On or After April 19, 1972 [35 IAC 212.321(c)]:

Metric P <u>Mg/hr</u>	E <u>kg/hr</u>	English P <u>T/hr</u>	E <u>lb/hr</u>
0.05	0.25	0.05	0.55
0.1	0.29	0.10	0.77
0.2	0.42	0.2	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
9.0	3.9	10.00	8.70
13.0	4.8	15.00	10.80
18.0	5.7	20.00	12.50
23.0	6.5	25.00	14.00
27.0	7.1	30.00	15.60
32.0	7.7	35.00	17.00
36.0	8.2	40.00	18.20
41.0	8.8	45.00	19.20
45.0	9.3	50.00	20.50
90.0	13.4	100.00	29.50
140.0	17.0	150.00	37.00
180.0	19.4	200.00	43.00
230.0	22.0	250.00	48.50
270.0	24.0	300.00	53.00
320.0	26.0	350.00	58.00
360.0	28.0	400.00	62.00
408.0	30.1	450.00	66.00
454.0	30.4	500.00	67.00

b. Existing Process Emission Units for Which Construction or Modification Prior to April 14, 1972 [35 IAC 212.322].

- i. No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any process emission unit for which construction or modification commenced prior to April 14, 1972, which, either alone or in combination with the emission of particulate matter from all other similar process emission units at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 [35 IAC 212.322(a)].
- ii. Interpolated and extrapolated values of the data in subsection (c) of 35 IAC 212.321 shall be determined by using the equation [35 IAC 212.322(b)]:

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

where:

P = Process weight rate; and

E = Allowable emission rate; and,

A. Up to process weight rates up to 27.2 Mg/hr (30 T/hr):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lb/hr
A	1.985	4.10
B	0.67	0.67
C	0	0

B. For process weight rate in excess of 27.2 Mg/hr (30 T/hr):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lb/hr
A	25.21	55.0
B	0.11	0.11
C	- 18.4	- 40.0

iii. Limits for Process Emission Units For Which Construction or Modification Commenced Prior to April 14, 1972 [35 IAC 212.322(c)]:

Metric P <u>Mg/hr</u>	E <u>kg/hr</u>	English P <u>T/hr</u>	E <u>lb/hr</u>
0.05	0.27	0.05	0.55
0.1	0.42	0.10	0.87
0.2	0.68	0.2	1.40
0.3	0.89	0.30	1.83
0.4	1.07	0.40	2.22
0.5	1.25	0.50	2.58
0.7	1.56	0.75	3.38
0.9	1.85	1.00	4.10
1.8	2.9	2.00	6.52
2.7	3.9	3.00	8.56
3.6	4.7	4.00	10.40
4.5	5.4	5.00	12.00
9.0	8.7	10.00	19.20
13.0	11.1	15.00	25.20
18.0	13.8	20.00	30.50
23.0	16.2	25.00	35.40
27.2	18.15	30.00	40.00
32.0	18.8	35.00	41.30
36.0	19.3	40.00	42.50
41.0	19.8	45.00	43.60
45.0	20.2	50.00	44.60
90.0	23.2	100.00	51.20
140.0	25.3	150.00	55.40
180.0	26.5	200.00	58.60
230.0	27.7	250.00	61.00
270.0	28.5	300.00	63.10
320.0	29.4	350.00	64.90
360.0	30.0	400.00	66.20
400.0	30.6	450.00	67.70
454.0	31.3	500.00	69.00

Attachment 3 Compliance Assurance Monitoring (CAM) Plan

There are no specific emission units that require a CAM plan as identified in the Monitoring Requirements of Subsection 8 for each Section 7, Unit Specific Conditions for Specific Emission Units.

Attachment 4 Guidance

The Illinois has prepared guidance for sources on the Clean Air Act Permit Program (CAAPP) that is available on the Internet site maintained by the Illinois EPA, www.epa.state.il.us. This guidance includes instructions on applying for a revision or renewal of the CAAPP permit.

Guidance On Revising A CAAPP Permit:

www.epa.state.il.us/air/caapp/caapp-revising.pdf

Guidance On Renewing A CAAPP Permit:

www.epa.state.il.us/air/caapp/caapp-renewing.pdf

The application forms prepared by the Illinois EPA for the CAAPP are also available from the Illinois EPA's Internet site:

www.epa.state.il.us/air/caapp/index.html

These CAAPP application forms should also be used by a CAAPP source when it applies for a construction permit. For this purpose, the appropriate CAAPP application forms and other supporting information, should be accompanied by a completed Application For A Construction Permit form (199-CAAPP) and Fee Determination for Construction Permit Application form (197-FEE):

www.epa.state.il.us/air/caapp/199-caapp.pdf

www.epa.state.il.us/air/permits/197-fee.pdf

JS:psj

Attachment 5 Emissions from Polyester Resin Product Fabrication Processes

Note: The more recent Unified Emission Factors are in Attachment 6, but the following emission factors are kept here for historical purposes.

The emission factor for polyester resin product fabrication processes (except for continuous lamination, pultrusion, marble casting, or closed molding processes) shall be based on the weight percent of monomer emitted, according to the following table:

Process	Emission Factor Equation	Minimum Emission Factor
NVS Resin, Non-Spray Layup	$E_{1ns} = [-0.46365(TH) + 0.00265(SC) + 0.00068(GT) + 0.00003(AF) - 0.0320] * 1.07 / (SC)$	$E_{1ns} = 15.4$
NVS Resin, Spray Layup	$E_{1s} = [-0.19881(TH) + 0.00827(SC) + 0.00038(GT) - 0.00854(RF) + 0.00003(AF) - 0.1941] * 1.28 / (SC)$	$E_{1s} = 25.9$
NVS Gel Coat	$E_{1gc} = [-5.34119(TH) + 0.00897(SC) + 0.00083(GT) - 0.00018(GCF) + 0.00004(AF) - 0.0476] * 1.13 / (SC)$	$E_{1gc} = 52.1$

Where,

E_{1ns} = NVS Resin Non-Spray Layup Emission Factor (% of available monomer)

E_{1s} = NVS Resin Spray Layup Emission Factor (% of available monomer)

E_{gc} = NVS Gel Coat Emission Factor (% of available monomer)

TH = Thickness (inches)

SC = Styrene Content (%)

GT = Gel Time (min)

RF = Resin Flow (lb/min)

GCF = Gel Coat Flow (lb/min)

AF = Air Flow Velocity (ft/min)

These are emission factors for uncontrolled polyester resin product fabrication processes based on the following studies: "Evaluation of Pollution Prevention Techniques to Reduce Styrene Emissions from Open Contact Molding Processes" (U.S. EPA, March 1997), "Baseline Characterization of Emissions from Fiberglass Boat Manufacturing" (NMMA, August 1997), "Phase I-Baseline Study, Hand Lay-Up, Gel Coating, Spray-Up Final Report" (CFA, September 1996), and "Derivation and Verification of the CFR Emission Models" (CFA, September 1997). Emissions shall be calculated using actual resin monomer contents.

Attachment 6 Unified Emission Factors (UEF)

These tables are the United Emission Factors (UEF) from "Technical Discussion of the Unified Emission Factors for Open Molding of Composites" (CFA, April 1999). If there are any updates to this document, the updated factors may be used.

Table 1 - Emission Rate in Pounds of Monomer Emitted per Ton of Resin or Gelcoat Processed

Styrene Content (%) ¹	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
Application Method Manual ^{2,4}	83	89	94	100	106	112	117	123	129	134	140	146	152	157	163	169	174	180
Mechanical Atomized ^{3,5}	111	126	140	154	168	183	197	211	225	240	254	268	283	297	311	325	340	354
Mechanical Atomized Controlled Spray ^{3,5}	86	97	108	119	130	141	152	163	174	185	196	207	218	229	240	251	262	273
Mechanical Non-Atomized ^{3,5}	71	74	77	80	83	86	89	93	96	99	102	105	108	111	115	118	121	124
Filament	122	127	133	138	144	149	155	160	166	171	177	182	188	193	199	204	210	215
Filament with VSR	79	83	86	90	93	97	100	104	108	111	115	118	122	125	129	133	136	140
Gelcoat	294	315	336	356	377	398	418	439	460	481	501	522	543	564	584	605	626	646
Gelcoat Controlled Spray	215	230	245	260	275	290	305	321	336	351	366	381	396	411	427	442	457	472
MMA Content (%) ¹	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Application Method																		
Gelcoat	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	225	270

- ¹ For styrene contents less than 33% or greater than 50% and for MMA contents greater than 18%, refer to the Table 2.
- ² For Vapor Suppressed Resin (VSR), multiply the UEF from the table above by (1 - (0.5 * specific VSR reduction factor)) to obtain the correct emission factor. The VSR reduction factor is based on testing of the specific resin/suppressant formulation.
- ³ For VSR, multiply the UEF from the table above by (1 - (0.45 * specific VSR reduction factor)) to obtain the correct emission factor. The VSR reduction factor is based on testing of the specific resin/suppressant formulation.
- ⁴ For processes using covered curing after roll-out, multiply the UEF from the table above by 0.8 to obtain the correct emission factor. For Processes using covered curing without roll-out, multiply the UEF from the table above by 0.5 to obtain the correct emission factor.

⁵ For processes using covered curing after roll-out, multiply the UEF from the table above by 0.85 to obtain the correct emission factor. For Processes using covered curing without roll-out, multiply the UEF from the table above by 0.55 to obtain the correct emission factor.

Table 2 - Emission Rate Equation Variables¹

Application Method	Monomer	A ₁	B ₁	C ₁	A ₂	B ₂	C ₂
Manual	styrene	1	0.126	0	1	0.286	0.0529
Mechanical Atomized	styrene	1	0.169	0	1	0.714	0.18
Mechanical Atomized Controlled Spray	styrene	1	0.13	0	0.77	0.714	0.18
Mechanical Non-Atomized	styrene	1	0.107	0	1	0.157	0.0165
Filament Application	styrene	1	0.184	0	1	0.2746	0.0298
Filament Application with VSR	styrene	1	0.12	0	0.65	0.2746	0.0298
Gelcoat Application	styrene	1	0.445	0	1	1.03646	0.195
Gelcoat Controlled Spray Application	styrene	1	0.325	0	0.73	1.03646	0.195
Gelcoat Application	methyl methacrylate	1	0.75	0	1	0.75	0

¹ These variables and the equation below shall be used for monomer contents above or below the values included in Table 1. Variables A₁, B₁, and C₁ are used for monomer contents less than 33%. Variables A₂, B₂, and C₂ are used with monomer contents greater than or equal to 33%.

$$\text{UEF} = A * (B * \text{Monomer Content} - C) * 2000$$

where Monomer Content is in weight percent (e.g., for an monomer content of 40%, use 0.40)

Attachment 7 Plant-wide Summary of VOM Emissions

The following table describes emissions increases from Permit 04080029, issued September 20, 2004.

	<u>Emission Units</u>	<u>Lb/hr</u>	<u>Tons/year</u>
Existing lines			
Line #1 Gel coat spray booth/cure oven and three batch pot mixers		7.15	31.3
Line #1 Continuous casting unit		1.40	6.1
Line #2 Solid surface casting vacuum pot mixers and solid surface cure oven		1.07	4.7
Subtotal for Existing lines		---	<hr/> 42.1
New Lines			
Line #3 Continuous casting machine		1.40	6.1
Line #3 Gel coat spray booths and cure oven		7.15	31.3
Line #4 Batch Pot Mixers		0.35	1.5
Line #4 Gel coat spray booth and cure oven		1.79	7.8
Miscellaneous Equipment		1.37	6.0
Subtotal for New lines		---	<hr/> 52.7
Total		---	<hr/> 94.8